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LEAGUE OF NATIONS. Health Committee

# HEALTH COMMITTEE

Minutes of the

## ELEVENTH SESSION

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*Held at Geneva from October 28th to November 3rd, 1927.*

LIST OF MEMBERS OF THE COMMITTEE.

| | |
|---|---|
| Dr. Th. MADSEN, *President*, | Director of the State Serum Institute, Copenhagen. |
| M. O. VELGHE, *Vice-President*, | Secretary-General of the Ministry of the Interior and of Health, Brussels. |
| Professor B. NOCHT, *Vice-President*, | Rector of the University and Director of the Institute of Tropical Diseases, Hamburg. |
| Dr. M. TSURUMI, *Vice-President*, | Representative of the Public Health Service of Japan. |
| Professor Léon BERNARD, | Director of the Health Institute of the Faculty of Medicine in Paris ; Technical Health Adviser at the Ministry of Health. |
| Sir George BUCHANAN, | Senior Medical Officer of the Ministry of Health, London. |
| Dr. H. CARRIÈRE, | Director of the Swiss Federal Public Health Service, Berne. |
| Dr. W. CHODZKO, | Director of the State School of Hygiene, Warsaw ; former Polish Ministry of Health. |
| Dr. C. HAMEL, | President of the Reichsgesundheitsamt, Berlin. |
| Dr. N. M. J. JITTA, | President of the Public Council of the Netherlands, The Hague. |
| Professor Ricardo JORGE, | Director-General of Public Health, Lisbon. |
| Dr. A. LUTRARIO, | Former Director-General of Public Health, Ministry of the Interior, Rome. |
| Professor Donato OTTOLENGHI, | Professor of Hygiene at the Royal University of Bologna. |
| Professor Gustavo PITTALUGA, | Professor of Parasitology in the Faculty of Medicine at Madrid University. |
| Dr. L. RAYNAUD, | Inspector-General of the Public Health Service of Algeria, Algiers. |
| Dr. L. RAJCHMAN, | Medical Director, Secretary of the Committee. |
| *Absent :* | |
| Professor G. Araoz ALFARO, | President of the National Health Department, Buenos Aires. |
| Professor J. CANTACUZÈNE, | Professor of Bacteriology and Director of the Institute of Experimental Medicine, Bucharest. |
| Dr. Carlos CHAGAS, | Director of the Oswaldo Cruz Institute, Rio de Janeiro. |
| Surgeon-General H. S. CUMMING, | Chief of the Public Health Service of the United States of America, Washington. |
| Dr. J. H. L. CUMPSTON, | Director-General of Health of the Commonwealth of Australia, Melbourne. |
| Col. J. D. GRAHAM, | Public Health Commissioner with the Government of India. |
| Dr. Alice HAMILTON, | Professor of Industrial Hygiene at Harvard University, Boston, Mass. |
| Dr. C. E. A. WINSLOW, | Professor at the School of Public Health, Yale University, New Haven, Conn. |

Professor Léon Bernard and Sir George Buchanan did not attend the first two meetings.

| | |
|---|---|
| Took part in the discussions : | |
| Dr. H. POTTEVIN, | Director of the Office international d'Hygiène publique, Paris. |
| Dr. C. PARK, | Chief Medical Officer, Australia House, London (replacing Dr. Cumpston). |
| Dr. Barros BARRETO, | Assistant to the Director-General, National Public Health Department, Privat-Docent of Public Health at the Faculty of Medicine, Rio de Janeiro, Brazil (replacing Professor Chagas). |
| Dr. STAMPAR, | Chief of the Health Section at the Ministry of Public Health, Belgrade, also attended the meetings. |

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Publications of the League of Nations

III. HEALTH
1927. III. 19.

TABLE OF CONTENTS.


Page

LIST OF MEMBERS . . . . . 3

FIRST MEETING, held on October 28th, 1927, at 3 p.m.

312. Opening of the Session . . . . . 5
313. Agenda of the Session . . . . . 5
314. Election of Vice-President . . . . . 5
315. Participation of Dr. Stampar in the Work of the Committee . . . . . 5
316. Invitations addressed to the Committee . . . . . 5
317. Decisions of the Council and Resolutions of the Assembly . . . . . 5
318. Budget of the Health Organisation for 1928 . . . . . 6
319. Question of the Nomenclature of the different Blood Groups . . . . . 6
320. Question of Test Sera . . . . . 6

SECOND MEETING, held on October 29th, 1927, at 10 a.m.

321. Work of the Malaria Commission : Report by Dr. Lutrario . . . . . 7
322. Telegram from Professor Aráoz Alfaro . . . . . 9

THIRD MEETING, held on October 31st, 1927, at 10 a.m.

323. Examination of the Report of the Medical Director on the Work accomplished since the last Session of the Committee . . . . . 9
324. Health Questions in the Pacific Islands : Reference to the Far-East Commission of this Part of the Medical Director's Report . . . . . 17

FOURTH MEETING, held on November 1st, 1927, at 10 a.m.

325. Examination of the Report of the Medical Director on the Work accomplished since the last session of the Committee (*continuation*) . . 17
326. Report of the President of the Health Committee and of the Medical Director on their Technical Mission to certain Latin-American Countries 21

FIFTH MEETING, held on November 2nd, 1927, at 10 a.m.

327. Report of the President of the Health Committee and of the Medical Director on their Technical Mission to certain Latin-American Countries : Adoption of a Resolution . . . . . 25
328. Examination of the Report of the Medical Director on the Work accomplished since the last Session of the Committee (*continuation*) . . . . . 26
329. Congratulations to Professor Nocht . . . . . 32

SIXTH MEETING, held on November 3rd, 1927, at 10 a.m.

330. Malaria : Offer of Research Facilities by the Government of the Kingdom of the Serbs, Croats and Slovenes . . . . . 33
331. Education in Public Health : Adoption of a Resolution . . . . . 33
332. Examination of the Report of the Medical Director on the Work accomplished since the last Session of the Committee (*continuation*) 35
333. Work of the Cancer Commission from 1923 to 1927 : Report by Sir George Buchanan . . . . . 37

SEVENTH MEETING, held on November 3rd, 1927, at 4 p.m.

334. Application of Article 10 of the International Opium Convention of February 19th, 1925 : Note by Dr. Carrière . . . . . 41
335. Examination of the Report of the Medical Director on the Work accomplished since the last Session of the Committee (*continuation*) . . . . . 41
336. Work of the Far-East Commission : Report by Dr. Jitta . . . . . 43
337. Work of the Cancer Commission : Draft Resolution . . . . . 46
338. Work of the Smallpox and Vaccination Commission : Report by Professor Jorge and Note by Dr. Jitta . . . . . 47
339. Question of Seamen's Welfare . . . . . 48
340. Date of the Next Session of the Committee . . . . . 48

EIGHTH MEETING, held on November 4th, 1927, at 10 a.m.

341. Welfare of Blind Persons and the Prevention of Blindness . . . . . 49
342. Examination of the Draft Report to the Council on the Work of the Eleventh Session of the Committee . . . . . 49
343. Budget of the Health Organisation . . . . . 50
344. Close of the Session . . . . . 51

ANNEXES . . . . . 53

# FIRST MEETING

*Held on Friday, October 28th, 1927, at 3 p.m.*

*President:* Dr. MADSEN.

**312. Opening of the Session.**

The PRESIDENT, welcoming his colleagues, stated that Surgeon-General Cumming, Lieut.-Colonel Graham, Dr. Alice Hamilton and Dr. Winslow would not be able to be present at the session. A letter from Professor Cantacuzène, regretting his inability to be present, was read.

The President also stated that Professor Léon Bernard and Sir George Buchanan would be present at the meetings on and after October 31st. Lastly, the President welcomed Dr. Raynaud, whom he was happy to see restored to health.

**313. Agenda of the Session.**

*The provisional agenda was adopted without modification* (Annex 140).

**314. Election of Vice-President.**

Professor NOCHT and Dr. TSURUMI, retiring Vice-Presidents, moved the election of Dr. Carrière and Professor A. Alfaro as Vice-Presidents for 1928.

*The proposal was adopted.*

**315. Participation of Dr. Stampar in the Work of the Committee.**

The PRESIDENT said that, in view of the journey made in the Kingdom of the Serbs, Croats and Slovenes on the invitation of Dr. Stampar and in the course of which several members of the Committee had been able to see the activity of the Director of the Health Department of that country, he considered that he was expressing the wish of all his colleagues in proposing that Dr. Stampar be more closely connected with the work of the Committee and in inviting him to follow that work.

Professor JORGE seconded this proposal the more warmly in view of the fact that the results obtained in the Kingdom of the Serbs, Croats and Slovenes, thanks to the initiative and the tenacity of Dr. Stampar, had completely removed certain misgivings which he had had. By carrying out the President's suggestion, the Committee would be honouring public health itself, in the person of Dr. Stampar.

*The President's proposal was unanimously adopted.*

**316. Invitations addressed to the Committee.**

1. *International Conference on Syphilis.*

The International Union and the French National League against the Danger of Venereal Diseases had invited the Committee to be represented at the International Conference on Syphilis, which would be held at Nancy from May 29th to 31st, 1928.

*The Committee decided* to leave it to the Bureau to arrange with Professor Léon Bernard regarding this question.

2. *Thirteenth International Red Cross Conference.*

The Central Committee of the Netherlands Red Cross had invited the Committee to send a representative to the Thirteenth International Red Cross Conference which would be held at The Hague in October 1928.

*The Committee decided* to send Dr. Jitta as its representative.

3. *Congress of Tropical Medicine.*

The Committee had taken note in April of a letter from the Dutch Society of Tropical Medicine in which a meeting of the Congress of Tropical Medicine had been contemplated at Amsterdam. The Society in question had since notified the Committee that it had accepted the invitation of the Egyptian Government to hold this Congress in Egypt, but that it hoped that a meeting of the Congress might take place in Amsterdam in the near future.

*This communication was noted.*

**317. Decisions of the Council and Resolutions of the Assembly.**

Dr. RAJCHMAN stated that the declarations made by M. Velghe before the Second Committee of the last ordinary session of the Assembly had certainly largely contributed to the cordial welcome with which the work and the proposals of the Committee had been received by the Second and Fourth Committees of the Assembly. He wished to draw attention to the fact that the Committee had been warmly supported by the British delegation and that Major Elliott had explained to the Assembly the activities of the Committee.

M. VELGHE could not agree with the too flattering compliments paid him by the Medical Director. He was, on the contrary, of the opinion that the work of the Health Organisation had each year a more favourable reception by the Assembly. This was above all due to the conscientiousness and the seriousness which the Committee itself showed in the accomplishment of its work with the invaluable collaboration of the Medical Director. At the beginning, some hesitation had been shown by the Assembly, particularly by reason of the increase in expenditure, but, in the face of the results obtained, it had been realised that this expenditure was to a great extent productive and was made in the general interest, that was to say, in the interests of all the States Members or non-Members of the League.

The PRESIDENT was certain that he voiced the opinion of all his colleagues in expressing their special gratitude to M. Velghe and to the Medical Director. The Committee would be equally unanimous in thanking the Rapporteurs of the Second Committee, Sir Ramaswani Ayyar and Dr. Mackenna.

Dr. RAJCHMAN reminded the Committee that two reports had been submitted to the Assembly.

The first, relating to the general activity of the Health Organisation, had been presented by Sir Ramaswami Ayyar (Annex 141), who had already shown such keen interest in the work of the Organisation. On the proposal of the Second Committee, the Assembly had adopted a resolution emphasising the universal character of the activities of the Health Organisation. The Medical Director drew particular attention to the last paragraph but one of this resolution concerning the study of health problems in the Pacific area, a question which was on the agenda of the present session of the Committee.

The second report had been submitted by Dr. Mackenna (Annex 142), who had taken an active part in the meetings at Montevideo. This report ended by a resolution which should serve as a basis for the discussions of the Committee and which the Medical Director would read. This resolution raised two important points of procedure :

1. The Assembly had declared itself, in principle, in favour of the method of collaboration as suggested to the Committee by the Health Administrations concerned.

2. Without expressing any opinion on one scheme of collaboration or another, the Assembly had requested the Council to ask the opinion of the Committee on the question in general, from a technical point of view, as well as from the point of view of practical application, and had entrusted the Council with the care of studying the more or less immediate application of these schemes.

Consequently, a report had been submitted on September 26th by M. Adatci to the Council which had decided (Annex 142 *a*) to submit the whole question to the Committee.

**318. Budget of the Health Organisation for 1928.**

Dr. RAJCHMAN was glad to note that the budgetary provisions for 1928 had been adopted by the Assembly as they stood and as they had been submitted by the Committee. On the other hand, the Assembly had also voted credits for a technical liaison with the countries of South America.

**319. Question of the Nomenclature of the different Blood Groups.**

The PRESIDENT reminded the Committee that the question of the nomenclature of the different blood groups had been submitted to the Committee. This research work had a certain importance from the point of view of clinical and legal medicine, blood transfusion and anthropology. As the result of a study which made it possible to note the divergencies in the nomenclature used to distinguish the different blood groups, proposals had been submitted to various institutes and Governments, and the President was happy to state that these proposals had been generally accepted. The centres which had replied were the following :

The National Research Council, Washington.
The Medical Research Council, London.
The Rijks Serologisch Institut, Utrecht.
The Civile medicinalvesen, Norway.
Serotherapeutisches Institut, Vienna.
University of Toronto.
The Italian Government.
The Pasteur Institute, Paris.

The steps thus taken, which had been crowned with success, showed once more that the Committee could serve as an international centre for the solution of certain problems.

**320. Question of Test Sera.**

The PRESIDENT said that there were now in use test sera for the determination of blood groups which were not always of sufficient value, and he proposed that the Committee should take note of the question with a view to establishing for these test sera an international standard. He proposed to refer the question to the Standardisation Committee.

*This proposal was adopted.*

## SECOND MEETING

*Held on Saturday, October 29th, 1927, at 10 a.m.*

*President* : Dr. MADSEN.

### 321. Work of the Malaria Commission : Report by Dr. Lutrario.

Dr. LUTRARIO, Chairman of the Malaria Commission, read a report on the work of the Commission (Annex 143).

The PRESIDENT congratulated Dr. Lutrario on his admirable report and also on his personal work, which would be so useful for malarial studies, and he extended his thanks to all the members of the Malaria Commission and to the experts who had participated in their work. He congratulated them particularly on their general report, which would mark an epoch in the history of the fight against malaria and would constitute an indispensable basis for the action which the Health Administrations would undertake.

He also thanked Dr. Lutrario for the excellent collection of cards which he had been kind enough to prepare at some trouble and which would be most useful as a source of reference in the field of malariology.

Dr. TSURUMI also congratulated the Chairman and the members of the Malaria Commission on their activity, which was becoming more and more considerable, both from the scientific and the practical points of view. He would await with the greatest interest the results of the scientific research which would be undertaken by the Commission and certain of its members. The tour undertaken with so much success in the United States by Colonel James and Professor Swellengrebel brought new proof of the extent of the work of this Commission and signified the realisation of a close collaboration between the Health Organisation and the United States.

He was very happy to learn that a malaria investigation would take place shortly for the first time in the Far East, at the invitation of the Indian Government. It was known that, outside British India, there were a great many countries in that part of the world which were affected by malaria. Dr. Tsurumi therefore hoped that similar investigations would be gradually carried out in the future in these countries. Generally speaking, Japan escaped this affliction, with the exception of the Island of Formosa, and even there the present situation was not grave.

Lastly, Dr. Tsurumi entirely agreed with the note relating to the foundation of a Darling medal and prize.

The PRESIDENT invited Professor Nocht to give some explanations regarding the treatment by plasmochine.

Professor NOCHT stated that plasmochine, a derivative of chinoline, had been recently developed by a German company. It was true that chinoline was also contained in the quinine formula, but it was doubtful whether the beneficial effect of plasmochine on malaria was due to this relation between quinine and plasmochine, since it was well known that other compounds containing chinoline, for instance, yatren, had absolutely no effect on the disease. Plasmochine, an alkylaminochinoline, was produced synthetically and was not a derivative of quinine.

At the previous meeting, Colonel James had shown that quinine was more effective when the patients had already been infected for some time than at the beginning of an attack, that was to say, that it was more effective when its action was co-ordinated with the immunising powers of the body. This fact had already been noted by Professor Nocht a long time previously as a result of many clinical experiments. Moreover, very little was yet known of the way in which quinine acted against malaria ; in particular, it was not yet known whether quinine affected the parasites directly or whether its action must be considered as an indirect one influencing the tissues of the body.

It was well known that the administration of quinine in any dose or form would practically never cause all the parasites to disappear from the body. A certain number of them would remain alive and later cause relapses. In this connection, the new product plasmochine had but few advantages. When the patient was treated with plasmochine, the relapses occurred a little later and less frequently, particularly in cases of tertian fever, but there was no certainty that this remedy would cause the final disappearance of schizonts. Plasmochine was in any case most valuable in the not infrequent cases of patients who were unable to take quinine, in which case it was necessary to administer other drugs. Plasmochine was really the most reliable substitute for quinine. Plasmochine, however, possessed still another great advantage,

particularly from the point of view of preventive medicine. Its effect on the gametes was very rapid, whereas quinine affected them very little. They would not disappear any more quickly from the peripheral blood than if no treatment were given. It was possible, in many cases, to find gametes in spite of a thorough quinine treatment lasting for three or four weeks. On the contrary, plasmochine treatment caused the gametes to disappear in every case from three to five days after the beginning of the treatment. Plasmochine gave the best results in cases of tertian fever, whereas in subtertian fever a combination of quinine and plasmochine — plasmochinum compositum — proved most useful. Smaller doses of both remedies combined could be used against subtertian fever than of either alone and with the same favourable results. The gametes also would disappear after a few days' treatment with plasmochinum compositum.

The plasmochine treatment had already been tried to some extent not only in Hamburg and Germany, but also in the Balkans, Greece, Roumania, Italy, Spain, South America, Straits Settlements, etc. Professor Nocht thought that about 2,000 cases had been treated. Up to the present, only two deaths had been reported, and it seemed to him very doubtful whether at least one of these was really due to plasmochine, which had been administered rather late, the case being a very severe one. The other fatality had been treated with rather big doses.

Plasmochine sometimes caused certain disagreeable effects, namely, cyanosis, due to methæmoglobinæmia, pains in the intestines and, occasionally, weakness of the heart. This last had only been observed by Professor Ciuca in Roumania. It seemed rather difficult to give an explanation of this unique occurrence. Perhaps it was due to some irregularity in the manufacture of the product, which was a very complicated matter. Professor Nocht thought that the process of manufacture was now stabilised, and there were not apt to be any further irregularities in the product.

It was necessary, of course, in view of the possible unfortunate effects of the drug, to be very careful as regards the dosage and the care of the patients. For this reason, plasmochine could not yet be put into the hands of the public in the same way as quinine. It must only be prescribed by medical men and the patient should be examined every day by his doctor. The cost as well as the dose of a plasmochine treatment was only one-tenth that of quinine.

The introduction of plasmochine had increased the number of really reliable drugs available for the treatment of malaria to four, namely : Methylene blue (quartan fever), stovarsol (tertian fever), a mixture of stovarsol and quinine (as recommended by Professor Marchoux for the treatment of tropical fever), plasmochine and quinine, the two latter remedies being effective against all forms of malaria. The fact that a substitute for quinine had been found was in itself very gratifying, but it might also give rise to the hope that the price of quinine might be lowered later owing to the resulting competition.

The President thanked Professor Nocht for his explanations. He wished to put a question to his colleague as well as to Colonel James. In the lecture which he had given the day before, Colonel James referred to the action of quinine and on this subject arrived at the same conclusion as that now adopted for other chemico-therapeutic remedies, that was to say, its action was rather indirect than direct. He showed that quinine remained inactive so long as the infection had not reached a certain point of development. From a prophylactic point of view it appeared that it had no action during the incubation period, but only when the patient had begun to develop clinical symptoms. Perhaps this was a law applicable to a great many infectious diseases treated by chemico-therapeutic remedies, for example, certain infections by streptococci and trypanosomes. The same observation had been made in the treatment of tuberculosis. This being the case, what would be the prophylactic action of quinine used either in small doses or by the English procedure of "week-end prophylaxis" ?

Colonel James was of the opinion that it would be extremely difficult to answer that question now. Up to the present, it must be assumed that quinine was without efficacity to prevent infection and even the results of infection at the beginning.

With regard to the prophylactic use of quinine, it would be necessary to institute supplementary researches and particularly to determine which was the best day in the course of the attack to administer quinine. It was already known that it was not the period of incubation or the first days of fever. Research should therefore be made, dealing with every day from the beginning of the fever.

Nevertheless, in practice it was known that, if a person continued to take quinine every day during his presence in a malaria region, that person would suffer very little from characterised attacks, but, if he had to interrupt the administration of quinine, he exposed himself to attacks which might be very severe.

The difference between quinine and plasmochine seemed to be that quinine acted as a stimulant of the natural processes of the struggle of the body against malaria, whereas plasmochine had a quite different action and seemed to kill the gametes. Colonel James thought that plasmochine acted as a hemolitic agent in the blood corpuscules, dissolving specially the weak corpuscules, that was to say, the affected corpuscules, freeing them thus from the parasites which would be carried away in the flow of blood and annihilated by the leucocytes.

In conclusion, Colonel James said that the best way for the Committee to assist in the work on malaria would be to have at its disposal the necessary funds. The Committee need not fear that the work was taking too scientific a turn, for the members of the Malaria Commission never lost view of their mandate, which was to find therapeutic anti-malaria measures adaptable to the situations of the poorer countries.

Professor NOCHT agreed, generally speaking, with Colonel James's observations. He also thought it would be very desirable to pursue these studies, but he considered that it would be rather dangerous to introduce at once into practice observations which were still purely scientific. Two principal points should be remembered :

(1) From the point of view of prophylaxis, it was true that, in treating a man with quinine, it was impossible to kill the parasites and that quinine had no prophylactic action before the infection was declared. Nevertheless, for persons living in a malaria region, the absorption of quinine in small or large doses might enable them to keep the infection below a certain level, so as to prevent attacks. This was important, particularly when, in a malarial region, a mass of men had to remain in a fit state to work a certain time during the malaria season (workmen, agricultural labourers, soldiers, etc.).

(2) It would be rather dangerous to introduce the principle of not treating the patients from the first day of the attack. In cases of tropical malignant tertiary fever, in particular, Professor Nocht was of opinion that it would be dangerous for the patient not to be treated from the first day of the attack.

The resolutions adopted by the Malaria Commission in the course of the session held from October 26th to 28th were read.

In the course of an exchange of views during which several modifications of form were made in the resolutions, M. VELGHE asked if these resolutions would become resolutions adopted by the Health Committee, if so, the drafting of them should be modified in consequence.

Dr. LUTRARIO insisted, nevertheless, that the text should clearly show that the resolutions were the result of proposals made by the Malaria Commission.

Dr. RAJCHMAN emphasised the fact that the resolutions could not be applied unless they were adopted by the Health Committee.

*It was agreed that* the Drafting Committee should prepare a text taking into consideration the various observations which had been made. The final text would be submitted later to the Committee.

Dr. LUTRARIO asked if the Committee would adopt a resolution for the nomination of new members of the Malaria Commission ?

Dr. RAJCHMAN replied that it would suffice to put these nominations in the Minutes.

*The report of the Malaria Commission was approved.*

### 322. Telegram from Professor Araoz Alfaro.

The PRESIDENT read a telegram in which Professor Araoz Alfaro expressed his gratitude for the distinction of which he had been the object, and his resolution to collaborate actively in the work of the Committee.

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## THIRD MEETING

*Held on Monday, October 31st, 1927, at 10 a.m.*

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*President* : Dr. MADSEN.

The PRESIDENT welcomed Professor Léon Bernard, Sir George Buchanan and Dr. Pottevin, and expressed his gratification that Dr. Stampar should have been so kind as to accept the invitation of the Committee.

### 323. Examination of the Report of the Medical Director on the Work accomplished since the last Session of the Committee.

The PRESIDENT opened the discussion on the Medical Director's report (Annex 144).

#### CHAPTER I. — THE SERVICE OF EPIDEMIOLOGICAL INTELLIGENCE AND PUBLIC HEALTH STATISTICS.

##### 1. *Geneva Bureau.*

The MEDICAL DIRECTOR recalled the fact that last week there had been a meeting at Geneva of the representatives of the Epidemiological Information Service of certain countries, namely, Colonel James, Dr. Park, Dr. Clark, who, in collaboration with Dr. Raynaud, had examined one by one the various publications of the Epidemiological Information Service. The Committee would find, in the documentation prepared for it, the resolutions adopted in the course of this meeting.

Sir George BUCHANAN remarked that the Medical Director had presented to the Health Committee a certain number of suggestions regarding the form to be given to the *Weekly Bulletin* in the future. These suggestions seemed to be such as to permit the attainment of the most essential object of the *Bulletin*, that was to say, the collection of information necessary to the Office international d'hygiène publique for the application of the International Sanitary Convention. It seemed to him, however, that these proposals should be examined by the Office international before it was decided definitely to fix the form which would be given to the *Weekly Bulletin*. It should be possible, ultimately, to take into account all modifications or adjustments which the Office international might desire to suggest.

Dr. RAJCHMAN explained that the plan followed for the preparation of the *Bulletin* in its present form was based on the principal recommendations of the Conference. Sir George Buchanan had just raised a question of principle which Dr. Rajchman considered should be answered in the negative. The agreement made with the Office international contained nothing which limited the sovereign rights of the Committee with regard to the decision to be taken concerning the form of the publications of the Epidemiological Service. There was another consideration which was perhaps still more important. The information received at Geneva was transmitted by the kindness of the different Governments and not in virtue of the Convention. On the contrary, it was by the application of the Convention that the information was transmitted to the Office international, and it was quite conceivable that, when the Convention had been ratified, there might be a difference between the two kinds of information.

Sir George BUCHANAN emphasised the fact that he had no wish to raise any question of principle, or any conflict of authority between the Health Committee and the Office international or any matter of sovereign rights. The question was as follows :

The stipulations of the Convention must be fulfilled, and it was the duty of the Office international to collect and issue the information required under the terms of this Convention. But, in anticipation of the Sanitary Convention, the Health Section had established a *Weekly Bulletin* containing information relating to the diseases dealt with under the Convention. It had now been settled that these two procedures should be harmonised and that the Health Section was to help the Office by arranging for the Office to use its *Weekly Bulletin*, and *vice versa*. It was a case for the maximum of friendly assistance, and Sir George Buchanan was of the opinion that, although in its new form the *Weekly Bulletin* might be entirely satisfactory, this form should not be considered inviolate, subject to no ulterior modification, if the Office international had reason to ask for a change.

Dr. RAJCHMAN said that evidently it was for the Health Committee, if it considered that course advisable, to modify at each session the form of the *Weekly Bulletin*. On the other hand, the document in question would go before the Office international at the same time as the resolutions of the Committee, and it would always be possible for that Office to discuss it. The Office could make such suggestions as it considered advisable ; those suggestions would be considered with the greatest attention, and everything possible would be done to adopt them. It could not, however, be said that arrangements relating to the *Bulletin* were dependent on the Convention. The Health Committee alone was master.

Sir George BUCHANAN drew attention to the passage in the Medical Director's report in which observations of the Health Committee were invited regarding the form of the epidemiological publications of the Health Section. The changes now made or contemplated in the case of the various publications seemed good, and he saw no objection to giving resumés of the epidemiological situation of diseases which were of special interest. But he thought that information given on these subjects should be limited to a statement of facts and that comments and *obiter dicta* should be avoided.

The PRESIDENT said that the Committee agreed with Sir George Buchanan on this point.

Professor OTTOLENGHI said that the suggestions of the Committee of Statisticians struck him as, in general, very acceptable. He could not, indeed, give his opinion in detail on the matter, as he had not had time to examine the number of the *Weekly Bulletin*, which had only just been distributed to the members of the Committee. Considering the importance of this branch of the work of the Health Section, it appeared to him that the proposals made should be studied more completely. He noticed also that, in the documentation "International Notification of Smallpox in Europe" (Annex 145), the investigation of smallpox was contemplated. It seemed to Professor Ottolenghi that the object of this investigation was not clearly stated and he would be glad to have information on this point.

Professor PITTALUGA considered that the discussion on epidemiological information and on the different bureaux was the proper time to speak of the recent institution in Algiers of the Information Bureau for Africa. It had not been mentioned in the report of the Medical Director. Dr. Raynaud had already begun the publication of some summaries in the local bulletin of the Algiers Public Health Organisation. Perhaps it would be advisable to reserve, in the epidemiological information of the League of Nations, a certain amount of space for the data thus published so as to give the Algiers Office, in spite of its present provisional character, all the importance which it should have from the point of view of public health, particularly in the colonies of West Africa. On the other hand, could not the Medical Director examine the means of replacing in the weekly summary the collection of data on each disease by plates of different colours according to the country ?

Dr. RAJCHMAN replied first to the observations made by Professor Ottolenghi :

1. The *Monthly Report* had already been appearing in its present form for two months and the recent Conference of statisticians had merely expressed its opinion on the new form given to this report.

2. Regarding the proposal for the investigation of smallpox, the following striking phenomenon had been noticed for the last five years : In Continental Europe (with the exception of Russia), the occurrence of smallpox had diminished to a remarkable degree : in 1926 barely 700 cases had been notified. On the other hand, about 10,000 cases had been notified in Soviet Russia and 10,000 cases in Great Britain. It was clear that it would be futile to compare these two figures ; the character of the epidemic and the clinical forms of the disease would be different in both cases. There was no way of knowing the reason for this phenomenon, but it seemed of interest to suggest to the national health administrations a "living" investigation of each case notified.

Replying to Professor Pittaluga, the Medical Director said that :

1. With regard to the local bureaux, it appeared indispensable, in order to avoid all misunderstanding, not to use for the moment the expression "Algiers Office" as no such office existed. Dr. Raynaud had simply consented to make a trial of the transmission of epidemiological information in Africa. This trial was not yet finished and it would be wiser to adjourn any discussion on the subject until Dr. Raynaud had been able to submit a report to the Health Committee.

2. The presentation of the information in the form of plates would be of little utility and very expensive ; in fact, the *Bulletin* was intended above all for the doctors in seaports who had need of detailed information, which could not be given in plates as Professor Pittaluga had suggested. It would seem that plates of this nature would be more suitable, eventually, in the *Monthly Report*.

Professor JORGE also thought that it would be very interesting to make an investigation on smallpox. If the Smallpox and Vaccination Commission were to be reconstituted, he thought it would be advisable to submit this question to that Commission.

M. VELGHE, referring to Professor Pittaluga's suggestion, said he feared that the publication of plates would delay the distribution of the *Bulletin*, which was only of great interest if it were received as soon as possible by the health authorities.

With regard to smallpox, he remarked that the number of cases notified in Belgium in 1924, 1925, 1926 (first six months), 1926 (second six months) and 1927 were 31, 12, 13, 6 and 0. During the past year, an official of the Health Administration had been making a close investigation of each case notified and the result of this investigation was that the decrease in the number of cases could be attributed not to a decrease in the incidence of the disease, but to a revision of the first diagnosis. It is probable that, in other countries, careful investigation would bring out similar facts. M. Velghe strongly supported the proposal tending to request the different health authorities to examine very closely all cases of smallpox which were brought to their notice. Such a study would be of interest, not only from the statistical point of view, but from a prophylactic point of view.

Professor Léon BERNARD, referring to a former remark of the Medical Director, thought that the fundamental importance of vaccination in connection with the decrease in the number of cases of smallpox should not be overlooked. In France, where an increase of smallpox had been observed, he had made a list of the cases notified and had noticed that the immense majority of cases had been imported from North Africa. If real epidemics had not resulted, this was due to measures of wholesale vaccination which the "préfets" had the legal right to make compulsory.

Similar investigations to those indicated by M. Velghe were being made in France and had produced similar results as regards the frequency of errors of diagnosis. Chicken-pox, in particular, was confused with smallpox. In Paris, for instance, the doctor entrusted with that work had often noticed these errors of diagnosis.

Dr. LUTRARIO noted the declaration made by the Medical Director to the effect that there was no Algiers Office working as a regional office, in the name of the League of Nations. No epidemiological bulletin could therefore be accepted from an organisation which did not exist.

Professor OTTOLENGHI wished to point out that his observations referred primarily to the *Weekly Bulletin* which had been distributed at the beginning of the discussion. As regards the investigation on smallpox, he fully supported Professor Jorge's proposal that this question should be referred to the Smallpox and Vaccination Commission for a detailed examination. Why should the investigation, however, be limited to the Continent and not bear on Great Britain ?

Dr. RAJCHMAN answered that, according to information given by Colonel James, very detailed investigations were made of each case in Great Britain and that probably the British Ministry of Health would be disposed to communicate to the Health Section the information collected.

Sir George BUCHANAN thought the discussion was ranging over two distinct questions : (1) obtaining information from day to day or week to week about the actual occurrence of smallpox in European countries and (2) drawing conclusions about the epidemiological characters and types of smallpox.

He thought it might be useful, from an administrative point of view, for the Health Committee to collect information on the first point. But as regards the second, the question of the type of smallpox was a controversial one, and somewhat dangerous for the Health Section to deal with. Indeed, it was hardly necessary, as much information on this subject was contributed to the Office international every half-year, and published by that body. It would be advisable to avoid competition on this matter with the *Bulletin* of the Office, which contained invaluable data regarding the characteristics of smallpox as now occurring in many countries. Before it was decided to use the Health Section's epidemiological bulletins for this purpose, the question should be examined by the Smallpox and Vaccination Commission, or at least should be referred for advice to the authorities interested, for example, as regards Great Britain, to the Ministry of Health.

Dr. JITTA pointed out that, from the point of view of smallpox, the position of the Netherlands was approximately the same as that of Belgium, as only two cases had been notified in 1926. The question was of the greatest importance and deserved something more than an occasional discussion. It presented certain important aspects, particularly for the Netherlands, and he reserved the right to present a report on this subject when the time came. He supported Professor Jorge's proposal and thought it was preferable not to prolong the present discussion if the Committee was going to decide to refer the question to the Smallpox and Vaccination Commission.

Dr. RAJCHMAN remarked that, from the point of view of procedure, the Smallpox and Vaccination Commission no longer existed, but it was always possible for it to be reconstituted.

Dr. RAYNAUD supported the proposal for an investigation on smallpox. This investigation would make it possible, in particular, not to attribute to North Africa so important a rôle in the importation of smallpox into France. There was, in North Africa, an emigration organisation of native workmen, and none of these could leave the country without having been examined and vaccinated. Dr. Raynaud wished to refer to the fact that for the last two years the vaccine used in North Africa was not so strong as formerly. This question was being studied at the present time and it might also be examined by the Smallpox and Vaccination Commission.

Dr. CARRIÈRE supported Professor Jorge's proposal. He wished to point out that, if in Great Britain smallpox had been still steadily increasing since 1924, it had been the contrary in Switzerland, where it had now entirely disappeared, though the two countries had much the same vaccination regulations. It would be interesting to study the reasons for this different situation in the two countries. In document C. H. 642, he had asked that Switzerland should figure among the countries from which smallpox had disappeared.

Sir George BUCHANAN also supported Professor Jorge's proposal. If technically the Smallpox and Vaccination Commission no longer existed, he asked formally that it should be reconstituted. In this connection, he referred to the Minutes of the Tenth Session, page 7, from which it appeared that the Commission was still in existence and that its work was not finished.

Professor Léon BERNARD thought that, if it were not desired to re-form the Smallpox and Vaccination Commission, so as to avoid having to re-form other Commissions, Professor Jorge should be asked, in his capacity as Rapporteur, to examine the question, taking into account, in consideration of Sir George Buchanan's remark, the work done by the Office international as well as by Geneva.

M. VELGHE remarked that the question of smallpox had been raised in connection with the report of the Medical Director. He thought that he should recall the agreement made last year with the Office international on the distribution of the work between the two organisations. The problem of smallpox being on the agenda of the Office international, he insisted that the Committee should not deliberately raise a question which was on that agenda or it would be very difficult to prevent one question or another being eventually raised in Paris at the same time as at Geneva. It had been agreed that the establishment of the agenda of both of these organisations should be made in agreement with the two Presidents. It was important to avoid the bad impression which would be created in the health administrations if there were useless repetition of work undertaken by the Office international and the Health Committee.

Dr. RAJCHMAN was convinced, with M. Velghe, of the necessity for carrying out loyally the agreement made with the Office international and he thought this would be easy under the circumstances. Without doubt, the question of smallpox was on the agenda of the Office, but it would be only from the April session onwards that the procedure, provided for the establishment of the agendas of the two organisations, would be closely applied. As the agenda of the Office was generally drawn up in a fairly liberal spirit, it seemed to him that, once again, it would be possible to keep to the procedure adopted before the agreement.

With regard to the subject under discussion, he noted that the Committee had received three proposals.

1. To refer the question to the Smallpox and Vaccination Commission ;
2. To leave the question to be examined by the Office international ;
3. Before taking any steps, to collect the opinions of the various health administrations.

The Medical Director would accept any decision which the Health Committee might see fit to take, but it struck him as not being a wise plan to drop the question now, considering its importance.

Professor JORGE remarked that, if the question were referred to the Smallpox and Vaccination Commission, this Commission could give a report within two days. Not only did he recognise that it was urgent to collect information on the question, but it even seemed to him that the problem should not be limited to Continental Europe, as very interesting information could be obtained in England, in the West Indies and in the United States, etc. Experience proved that the investigation of isolated cases was not likely to give useful results.

Dr. POTTEVIN was of opinion that the question of the relations between the Office international and the Health Committee should not be settled merely by attributing certain questions to Paris and certain questions to Geneva. In his opinion, one and the same question presented different aspects which might be fruitfully studied either by the Office or by the Committee according to the means of action which these organisations had at their disposal. If it were a question of investigation among the health authorities, it was for the Office international to deal with the matter, since it was composed of the official and responsible representatives of the health authorities.

Dr. RAJCHMAN observed that the question of the relations between the Health Committee and the Office international were not on the agenda of the session.

Sir George BUCHANAN proposed that the question should be referred to a Smallpox and Vaccination Sub-Committee, of which Professor Jorge would be Chairman and the members of which would be those of the Commission previously appointed, namely, Dr. Carrière, Dr. Jitta and himself; Dr. Pottevin would assist.

The PRESIDENT proposed to add to this Sub-Committee Professor Léon Bernard and M. Velghe.

*The proposals of Sir George Buchanan and the President were approved.*

Sir George BUCHANAN drew attention to paragraph 5 of this section of the report which caused some embarrassment to Colonel James. The latter, as a Medical Officer of the British Ministry of Health, undertook certain of the duties of a medical intelligence service, but Colonel James should not be designated "Chief of the Medical Information Service" of the Ministry.

Concerning paragraph 6—"Influenza Report", he would be glad to confer with the Health Section as to any further information which could be given on this subject.

Referring to paragraph 7—"Public Health Statistics", he suggested a revision of these reports, every four or five years, for example, when a few pages pointing out the changes which had occurred during the interval, could be added to copies still in stock.

Dr. RAJCHMAN thanked Sir George Buchanan for this suggestion, which the Health Section would adopt if the Committee agreed, and he also thanked him for the information which he had been good enough to give regarding influenza.

*The Committee adopted Sir George Buchanan's proposal.*

2. *The Eastern Bureau at Singapore.*

Sir George BUCHANAN noted, in paragraph 2—"Transmission by Wireless", that it was proposed to summarise in clear the wireless bulletins in cipher. He would like the Health Section to prepare a note explaining the advantages of this proceeding. Personally, he had never been able to realise how these broadcast messages in clear could be of any practical use.

Dr. RAJCHMAN explained that the proceeding in question had been recommended by the Advisory Council of the Singapore Bureau and approved last year by the Health Committee. It had already been applied at the request of several Far-Eastern administrations. The summaries in clear were principally provided for the information of the captains of ships.

Dr. TSURUMI thought it necessary to state clearly the procedure to be adopted regarding the discussion on the constitution of the Advisory Council of the Singapore Bureau.

During the session held last February, the Health Committee had decided that the final recommendations on this question should be submitted to the Council of the League after having been examined at the present session. Before this final recommendation was drawn up, the resolution of the Health Committee on this subject had been communicated last March, as was stated in the report of the Medical Director, to the members of the Advisory Council, with the request that they should submit any useful observations they might have to make on the subject.

As the result of this request, different Far-Eastern Governments had presented their observations. The opinion of Dr. Otten, Interim Director of the Health Service of the Dutch East Indies, was particularly interesting.

On the other hand, Colonel Graham, Chairman of the Advisory Council of the Singapore Bureau, had expressed his opinion on the question during the preceding session, so that the principles of the resolution taken by the Health Committee on February 14th, 1927, should be attentively examined. The draft constitution of the Advisory Council was placed on the agenda of the next session of that Council which would be held at Delhi, in India, at the end of the year.

This being the case, it did not seem desirable at the moment to decide upon the future constitution of the Advisory Council of the Eastern Bureau. On the other hand, it seemed necessary to discuss the matter at the present session. In other words, it would be wiser to establish the opinion of the Health Committee on this question after it had listened to the collective observations which would be made at the future session of the Advisory Council.

In view of the importance of this question, Dr. Tsurumi begged the President to be present at the meetings of this Council, as he had been invited to do by the Indian Government. If, nevertheless, the President could not be present, the Medical Director might be asked to go to India in his place.

Dr. RAJCHMAN felt that he ought to give a brief outline of the question.

Last year the Chairman of the Advisory Council had asked the Health Committee to prepare a preliminary draft to serve as a basis for discussion. This was done in February. The preliminary draft was sent to all the members of the Advisory Council and to the health authorities, and a certain number of replies had been received, which had been communicated to the Health Committee. The documentation had now been transmitted to the Advisory Council, which would meet at Delhi at the end of the year and would submit its report to the Health Committee. The Health Committee, during its April session, would formulate its recommendations to the Council of the League, basing its opinion on the information thus obtained.

The Medical Director added that last year, in addition to the preliminary draft, draft rules of procedure had been transmitted which had given rise to several observations, particularly from Dr. Otten, Dr. Tsurumi and Dr. Elkington. Perhaps it would be advisable to have the opinion of the Health Committee regarding these rules. It was a question of knowing if the Advisory Council of the Singapore Bureau should be considered as a Sub-Committee of the Health Committee in the sense of the Rules of Procedure of the latter. This was not his personal opinion. While it was true that, if the Advisory Council were attached to the Health Committee, not only in the sense that its decisions should not be executory until after the approval of the Health Committee, but also from the budgetary point of view, it was none the less true that the Council was practically autonomous, and it seemed that the Health Committee had recognised this to a certain extent in preparing, for the use of the Advisory Council, rules of procedure based on its own. Perhaps, if explanations were necessary on this subject, Dr. Jitta might be asked to call a special meeting of the Far-East Commission.

Dr. LUTRARIO drew special attention to paragraph 3 in this section of the report—"Information concerning the movements of infected ships". This was proof of one of the most useful activities of the Singapore Bureau, since there had been 107 notifications during the first six months of 1927, which amounted to approximately one notification every 36th hour.

Dr. JITTA thanked the Medical Director for his proposal to consult the Far-East Commission.

Sir George BUCHANAN gathered that the Medical Director asked for the opinion of the Far-East Commission on two or three questions of an internal nature regarding the Singapore Bureau. He agreed to this course if it meant that the opinions of that Commission, when approved by the Health Committee, would be transmitted to the Advisory Council of the Singapore Bureau, and would not be final decisions. Like Dr. Lutrario, he considered it useful that the Singapore Bureau should assist in sending information regarding infected ships to the next port of call. But there were objections to a general broadcasting of the statement that a ship was an "infected ship", once it had been properly dealt with.

With regard to paragraph 4 —, "Weekly Fasciculus", he considered that the report of the Medical Director was a little in advance of events, if it implied that the Epidemiological Centre at Melbourne, for the Austral-Pacific area defined by the Pacific Health Conference, had been officially established. He hastened to add, however, that negotiations on this subject were well under way with the British Dominions and Colonies interested in the matter.

On the other hand, in paragraph 9 of the same section in the report it did not appear that the report took into account the latest events which had occurred. The report was limited to letters written in March to the health authorities in the Far-Eastern area and the answers received. But the tenor of the replies which would now be given, in the light of the agreement subsequently concluded with the Office international, would hardly be the same, and he thought that it would be well for the Director to add a paragraph making the situation clearer so as to avoid all possibility of confusion.

Dr. RAJCHMAN was also of the opinion that it would be necessary to indicate to which letter the replies received referred, and he proposed to reproduce these letters in a supplementary annex. As to the additions suggested by Sir George Buchanan, the Medical Director would like to have some additional information on this subject. The situation was as follows :

The Health Committee had written to all the health authorities in touch with the Singapore Bureau, asking them if they would agree to transmit through the Bureau notifications and information addressed to the Office international. Some replies to this request had been received. In the meantime, the Health Committee had concluded with the Office international an agreement according to which the Singapore Bureau should work in the Far East, so to speak, as the accredited representative of the Office international with regard to the activities stated by the articles in question in the Convention.

The Medical Director wondered how these replies, which had already been received from the British Colonies and Dominions, might be modified to fit in with this agreement.

Sir George BUCHANAN explained that, in his letter of March 30th, the Medical Director had not discriminated between the articles of the Convention. The agreement entered into with the Office international had discriminated between these articles. The information provided for in a series of articles which he might refer to as being in Category A would be received by the Singapore Bureau and transmitted by that Bureau ; the information provided for by another series of articles, Category B, would either be sent directly to the Office international

by the sanitary authorities or, if sent to Singapore, would merely be re-transmitted from there to Paris. The discrimination which had since been made should be made clear in a report issued at the present date. The British colonies concerned, for example, would probably now decide to send information in Category B to Paris via London and not trouble Singapore wit hit.

Dr. RAJCHMAN thanked Sir George Buchanan.

## CHAPTER II. — SYSTEM OF LIAISON BETWEEN THE VARIOUS NATIONAL PUBLIC HEALTH SERVICES.

### *Interchanges of Public Health Personnel.*

Dr. TSURUMI thought that he should speak briefly regarding the exchange of health personnel which had taken place in Berlin and at which he had been present. This exchange had been very instructive and had given fruitful results, thanks to the kindness of the German authorities and, in particular, to the minute preparation and to the care of Dr. Hamel in his quality of Chairman of the Reichsgesundheitsamt. All the members of the exchange had been warmly received and every facility had been put at their disposal by the German authorities as well as by the Directors and Chiefs of the institutions or hospitals which they had visited. Without infringing on the observations which these exchange professors would make at their final meeting, Dr. Tsurumi wished to speak principally of the development of medical science in Germany.

The considerable drop in infant mortality in Germany was a great success for German medical science. Account must nevertheless be taken of the help which had been given by the development of institutions and services which were fighting against infant mortality. A committee of experts on this question had been constituted by the Health Committee and this Committee would not fail to profit by the collaboration of the German expert, Dr. Rott. Information had been received to the effect that the mortality from tuberculosis in Germany had perceptibly decreased lately, thanks to scientific and administrative efforts, whereas this mortality had increased during the war.

With regard to the treatment of tuberculosis, a great deal of helio-cure had been applied, including artificial light. It was necessary to continue a study of this therapeutical method so as to obtain the best results possible.

Dr. Tsurumi expressed his deep interest in Professor Neufeld's lecture on the results obtained from animal experiments regarding the intimate relationship existing between certain diseases and predisposition. He not only shared this idea, but had reached the same conclusion in regard to certain infectious diseases. The spread of an epidemic of influenza or other similar disease was more easily explained when the existence of such a relationship between diseases, predisposition and constitution was granted.

Up to the present, in his view, the study of diseases had been concerned principally with the search for their etiological agents, for example, in the case of an infectious disease, efforts had rather been made to identify the specific bacterium while observations regarding the particular condition of the human body had been, to some extent at least, neglected.

Nevertheless, it was necessary to take account of two factors in the development of a disease — its cause and the state of the human body. Take, for example, an epidemic of influenza ; it was well known that certain individuals were subject to the disease while others escaped in spite of the fact that both were in the same environment under the same conditions.

This fact could not be explained without taking into account the existence of this intimate relationship between disease and susceptibility as well as the constitution of the human body. In his view, this relationship was not limited to contagious diseases, but applied to disease in general.

It was naturally desirable to study the questions of constitution and of predisposition from various angles, and to analyse them from the point of view of morphology, pathological anatomy and even of endocrinology. In this connection, Dr. Tsurumi was glad to mention, among others, the numerous and valuable communications of an Austrian scientist, Dr. Julius Bauer, Professor at the Vienna Faculty of Medicine.

In consideration of these facts, Dr. Tsurumi thought it necessary to study this subject in the future.

He had also heard with keen interest the lecture of Dr. Krohne, who stated that race hygiene and heredity were problems for future study in Prussia. The problems were particularly important for Japan, where unhappily the health conditions and physical constitution were not satisfactory.

His attention had been drawn to the development of physical culture in Germany ; the institutions created there and the evolution of the German nation in this direction were indeed remarkable, and proved that Germany attached great importance to this subject.

Finally, Dr. Tsurumi pointed out that the public health services and social hygiene institutions of Germany were highly developed and organised along practical lines.

Dr. HAMEL thanked Dr. Tsurumi warmly for his kind words. The Government of the Reich, the Reichsgesundheitsamt and all the other authorities had been happy to collaborate in the preparation of this interchange. He hoped that the tour had shown that everywhere in Germany the work undertaken by the Health Organisation was appreciated, and the interchange medical men and the representatives of that Organisation might be certain that they would always be received most cordially.

Dr. RAYNAUD recalled the fact that, last year after the interchange in the East of seaport doctors, he had asked if it would not be possible to make a comparative study on the different means of deratisation. The question had been adjourned. He wondered if it would not be wise to take it up again in view of the new ways of using cyanhydric acid.

Professor PITTALUGA entirely supported Dr. Raynaud's proposal. It was time to organise a limited interchange to clear up this important question. He was sure that the Spanish Health Administration would cordially welcome this interchange.

Dr. JITTA excused himself for not having yet been able, for reasons over which he had no control, to present his official report on the tour in the Baltic and the North Sea. He hoped this report would be submitted to the Committee before its next session.

He agreed with Dr. Raynaud's proposal. Such a study would make it possible to clear up several doubtful points, and perhaps to arrive at the adoption of a uniform system for all countries.

Sir George BUCHANAN was of the opinion that this was an important question, of which the members of the Committee should have been informed beforehand if the matter was to be decided at the present session. It would be necessary to be very careful in drawing up the questions which were to be studied. Was it wiser to organise another interchange of port medical officials for this purpose, or would it not be preferable to entrust one or two experts with a thorough and special study bearing, for example, on the expense, the safety of various cyanide processes, the results obtained, the applicability of cyanide processes to ships with merchandise in the hold and unloaded and the use of these processes in the case of cereals and other special kinds of cargo. If it were merely a question of collecting information, there was already a large documentation on the subject, certainly at the British Ministry of Health, and no doubt in other administrations also. It must not be forgotten that the obligations of port sanitary authorities with regard to this question arose from the Sanitary Convention, and that it would be important to obtain the opinion of the Office international on this subject before deciding upon any enquiry. He proposed that the committee should agree with regard to the principle, but should adjourn any discussion on the form to be given to the resolution.

The PRESIDENT said that the Health Section would study the question, and that the Medical Director would agree with the Office, with Dr. Raynaud, Professor Pittaluga and Sir George Buchanan, on the best solutions.

*International Courses of Public Health.*

Regarding the "London course", Sir George BUCHANAN wished to point out that the Society of Medical Officers of Health and the British Ministry of Health had been asked to help in its preparation and had done so, but the real instigators had been the Health Committee and the Health Section. Courses of this nature were not altogether in the British tradition. Every effort had been made in Great Britain to assure the success of the present scheme, but its preparation had been difficult. There was at one time a considerable danger of not having a sufficient audience for the large number of lecturers who had been invited. If the course were a success, as he hoped it would be, it should only be considered as an experiment, and there was reason for hesitation before deciding to renew this experiment frequently.

*Programme for* 1928.

Dr. LUTRARIO recalled the fact that he had always been a warm partisan of interchanges. He had wished to see for himself how Italy stood in this matter and he had observed that his country was placed fifth among the countries visited, in spite of the interest of that country in many branches of health matters. He had seen with pleasure that, at the end of this chapter of the Medical Director's report, a general interchange was contemplated in Italy as well as an international course of public health. He thanked the Medical Director for this dual suggestion, but he would have preferred it to be less conditional.

Professor Léon BERNARD stated that the fact that the preparation of the London course demanded so much effort on the part of British organisers was due solely to the difficulty of this sort of enterprise. He was convinced that the course wuold have in England the same success as it had had in Paris. The organisers of such courses had to overcome considerable difficulties, particularly that of bringing together lecturers and audiences who all spoke the same language. This question of language was most important. It was undeniable that one of the languages which were at present most general was English. French was still benefiting from the tradition which had made it the diplomatic language. He considered it preferable to allow the Medical Director to judge of the desirability of choosing this or that place for these interchanges.

Professor PITTALUGA said that the course which took place in Paris had been a real success and he was convinced that it would be the same for other courses in the future. This was a very important aspect of the work, which was in a way didactic, of the Health Organisation. The courses should be regarded differently from the interchanges, from the point of view of the recruiting of the personnel and of the subject treated. Contrary to the procedure for interchanges, for which the personnel should be limited to chosen groups, it was necessary to extend as much as possible the recruiting for these courses so that the health work of the League might be known to the general public. Secondly, it would be an advantage, in these

courses, to deal with one problem of public health instead of dividing the attention of the listeners between fifteen or twenty different subjects. In conversing with probationers at the Paris courses, he personally had noted, in this connection, that the present system had certain disadvantages which detracted somewhat from the utility of the courses.

Dr. RAJCHMAN, replying to Dr. Lutrario, explained that the conditional character of the proposal made in his report was due to the present uncertainty regarding the money available for the interchanges. If the possibilities for 1928 were examined, it would be seen that an interchange would take place in British India and that the liaison work begun in the previous years must be continued, particularly with the Far East and Latin America. Lastly, there was the programme of European interchanges.

It would certainly be possible to organise a collective interchange in Italy by modifying slightly the general programme for this kind of interchange. The question should be examined in detail with Dr. Lutrario and perhaps even at Rome.

There remained Dr. Raynaud's suggestion, which would be examined by the Health Committee and the Office international jointly. Lastly, the Medical Director wished to refer to a certain number of suggestions which had not been mentioned in his report, because they had occurred to him during a tour in the Kingdom of the Serbs, Croats and Slovenes. The fundamental idea of interchanges was to create an *esprit de corps* among doctors and health officials throughout the world. He thought he could state that this object had been attained. That being so, what was the best way of modifying the present system in view of the fact that the present stage was one of adaptation ? Since the beginning there had been interchanges of all sorts, collective interchanges, interchanges of specialists, international health courses, etc. Little by little the tendency had become manifest to obtain practical results from the interchanges. Thus, physical culture and the study of means of deratisation had been mentioned in this connection.

There was one problem which had not yet been considered in its entirety, namely, that of sanitary engineering. There had already been a most successful exchange on this subject which was of particular interest to large towns. If, however, the problem, for example, of typhoid was considered, the spread of this disease in certain countries since 1922 was apparent, and, apart from any epidemiological considerations, it seemed undeniable that this was a question of sanitary engineering, viz., the problem of improving rural health conditions in many European countries. The Medical Director thought that it would be very useful to constitute a group of health officers and sanitary engineers, working for the benefit of the health administrations of agricultural countries, such as Russia, Poland, Hungary, Czechoslovakia, the Kingdom of the Serbs, Croats and Slovenes, Greece, Bulgaria, Roumania, etc., at the rate of two or three members per country. They would study sanitary engineering in rural hamlets and small villages, omitting the big schemes of urban sanitary engineering. To this group of fifteen or eighteen persons would be attached four or five engineers chosen among the leading men of their profession and belonging to countries having had a particularly wide experience of the question, for example, Denmark, Great Britain, Germany, the Netherlands, France and the United States. This group would visit the countries of Western Europe, where considerable experience of the question had already been acquired, and would then go to Central and Eastern European countries where existing conditions were being reformed. This tour would last about three months and the results would be submitted to the Health Committee in the form of a report. This proposal should be studied in detail in collaboration with Dr. Stampar and the few eminent persons who had been mentioned.

*The discussion was adjourned to the next meeting.*

**324. Health Questions in the Pacific Islands : Reference to the Far-East Commission of this part of the Medical Director's Report.**

Dr. RAJCHMAN proposed to refer to the Far East Commission the passage in his report concerning the suggested mission to study health questions in the Pacific islands.

*This proposal was adopted.*

## FOURTH MEETING

*Held on Tuesday, November 1st, 1927, at 10 a.m.*

*President :* Dr. Th. MADSEN.

**325. Examination of the Report of the Medical Director on the Work accomplished since the last Session of the Committee** (Continuation).

*Programme for 1928* (continuation).

Dr. RAJCHMAN, after having recalled his suggestion of the previous day regarding a collective study on sanitary engineering, said that his second proposal also dealt with a suggestion that the problem of health in country districts should be investigated. The problem was to organise, not an international course, but an interchange visit of a new type at Zagreb. Doctors from agricultural countries of Central and Eastern Europe and from one or two South-American countries would be brought together, that was to say, from countries in which work similar to that with which Dr. Stampar would be dealing would have to be carried out. Dr. Stampar and two of his assistants would be asked to lecture, for a few weeks, on their ideas and doctrines, the surroundings in which they worked, and the special difficulties with which they came

in contact. There would then be field work for two months in Serb-Croat-Slovene localities, comprising individual practical work for groups of two participants, who would live the same life as their colleagues and would share all their activities. It might be possible to add four foreign technical experts to these three Serb-Croat-Slovene lecturers :

One lecturer would explain, in perhaps greater detail, the application of sanitary engineering. He would remain in the country, and at the Zagreb school for several months. He might perhaps even go there in advance, in order to make the necessary preliminary studies on the spot.

The second would explain the means of applying statistical methods in the examination of health problems.

The third, whose duties would be of particular interest, would deal for two or three weeks with methods of propaganda and the health instruction questions with which several European specialists had lately been dealing.

Finally, a fourth would deal with health and social medicine with special reference to social insurance.

A group of seven persons would thus be brought together, and, to a certain extent, it would thus be possible to approach the ideal put forward on the previous day by Professor Pittaluga, to the effect that no complete statement of all health problems should be made, but only of those problems affecting the administration of the Kingdom of the Serbs, Croats and Slovenes and of those other countries having an agricultural population where endeavours were being made to spread, by means of hygiene, a civilising influence on the population in general.

The third proposed interchange visit which the Medical Director wished to submit to the Committee consisted in the organisation of a study tour for veterinary surgeons and a few specialists. This study would concern the question of milk control. The tour, as was the case with the first, would be concluded by the submission of a report to the Health Committee. This scheme appeared to be of particular interest to the President of the Committee, and the idea had been put forward by certain Danish veterinary surgeons who proposed to investigate the question of milk control in Denmark and Germany. If the Committee adopted the suggestion, the programme would have to be enlarged and extended to cover several European countries and would also have to include a study of American methods.

To sum up, if the suggestions of the Medical Director were accepted, the programme for 1928 would be as follows :

(1) An interchange visit to begin in India at the end of December.

(2) A continuation of the system established for keeping in touch with countries of the Far East, more particularly with Japan and China, and with Latin America.

(3) As far as Europe was concerned, a special collective interchange visit in Italy to deal with certain well-defined problems, the examination of which would be undertaken by Dr. Lutrario and Dr. Messea, in co-operation with the Health Section.

(4) A collective study tour on sanitary engineering, with a report to the Health Committee.

(5) A collective study tour, including a certain time at the Zagreb school, to be followed by individual practical work.

(6) A study tour devoted to the question of milk control, terminating in a report to the Committee.

Finally, during the remainder of the session, the Committee would examine the proposals of Dr. Raynaud and Professor Pittaluga concerning the investigation of methods of deratisation.

It was obvious that the accomplishment of this programme was subordinate to the achievement of favourable results in the financial negotiations now in progress.

Professor Léon BERNARD took the view that all the proposals of the Medical Director, which were of equal interest, should be adopted. He would merely express his regret that the Committee appeared to be abandoning the fruitful field opened up by the organisation of international courses. Obviously, it was not possible to organise such courses every year to take place in the same University. He asked, however, that the Committee should, at any rate, retain the idea, for it had been proved useful.

Dr. RAJCHMAN fully agreed with Professor Léon Bernard.

Professor Léon BERNARD desired to make an observation connected with the proposals of Professor Pittaluga and Dr. Lutrario. Next year, a Conference of the International Union against Tuberculosis would be held at Rome. In this connection, the Italian Committee was preparing a series of very interesting visits to the various Italian institutions. It would be perhaps of use to associate the efforts of the Health Organisation with those of the Italian Committee, in order to take the opportunity of organising an interchange visit on the question of tuberculosis.

Further, the Medical Director had said, with regard to the interchange visits which he had suggested, that it would be useful to choose the leaders of the subjects in question in each country. Perhaps the persons whom the Committee had in mind might not be able to absent themselves from their work for the long period of time required for such interchange visits. It might therefore be an advantage to reduce their length.

Professor OTTOLENGHI thanked and congratulated the Medical Director for his important suggestions regarding sanitary engineering. They constituted a useful development of the work of the Health Organisation in the field of interchange visits.

The programme which he had submitted in this connection was very interesting and deserved the Committee's full attention. While approving it in principle, he would nevertheless desire to make certain observations which he thought would be of some practical value.

In the first place, he thought that the Committee, as well as the Medical Director, would willingly recognise the fact that, in ordinary circumstances, there was no need to make a clear distinction between sanitary engineering in rural districts and sanitary engineering in towns. They would also agree that the first was not, generally speaking, more important than the second. This question varied to a considerable degree, not only from country to country, but also from one district to another in the same country. There were many examples of towns in the most urgent need of improvements in housing and in their public services. Since, however, the Medical Director was principally concerned with the case of certain countries of Eastern Europe, he was ready to agree that, to begin with, special importance should be paid mainly to health conditions in country districts. By this means, the Health Section, as far as sanitary engineering was concerned, could embark upon its work with every confidence that such a beginning would be followed by a wider development which would lead to an increase in the benefits resulting from such work.

There was another important point, however, which he thought of equal interest. The Medical Director, in his clear and remarkable statement, had urged that, in order to achieve the proper spread and adequate development of sanitary engineering, an interchange visit of personnel should be prepared. This visit should be similar to those which had already been organised. The personnel to take part in such a visit should be composed of sanitary engineers : for example, two engineers for each country where the principles of sanitary engineering had not yet been adequately adopted. It was very probable, however, that this form of interchange visit would not achieve all the results that might be expected. The fact was that, if sanitary engineers were sent to study the progress achieved in a country in regard to sanitary engineering, the benefit which would be derived would be almost solely in the direction of perfecting the personal qualifications of each person taking part in the visit. This meant that the effects of such a tour of investigation would of necessity be very limited and would not be of very great advantage to the countries themselves. These consequences could not vary to any great extent, even if the interchange visit included State officials, for such officials did not usually, unless they were at the head of their Departments, succeed in changing to any great extent the routine followed by their administration.

What was really indispensable for the development of sanitary engineering was to bring about a profound and general change in the minds of the technical experts. This could only be achieved by education. Professors of Schools of Sanitary Engineering, as well as Professors of the Faculty of Medicine, must be given the opportunity of estimating the importance of the problem of sanitary engineering in countries where it was to be seen in its fullest development. Such a study on their part should lead to a perfecting of the system of training sanitary engineers and a change in the methods used in giving that training. In order that this work of perfecting should be more accurate and of greater profit, the investigation should be made when the two groups of professors which he had mentioned formed part of the same interchange visit, in order that they could discuss the same subjects together and arrive at a conclusion. Thus, it would finally be possible to overcome the lack of liaison existing in most countries of Europe and in many health administrations between the health specialists and health engineers. This lack of liaison led to very regrettable results which were well known.

To sum up, Professor Ottolenghi was therefore of opinion that advantage should be taken of the interchange visits in order to bring into contact those who taught the specially technical side of sanitary engineering and those who taught hygiene to sanitary engineers. Both classes of teachers would thus learn to recognise the necessity for examining the problems of sanitary engineering as a whole, and of invariably regarding them in their double aspect — the health aspect on the one hand, and the technical and economic aspects on the other. They would thus end by basing their whole system of teaching on this principle.

M. Velghe did not think that, in many countries, more especially in Belgium, there was still much to be learnt in regard to sanitary engineering in rural districts. The improvement of sanitary conditions in villages was, he thought, as far as those countries were concerned, a problem which had received its technical solution. The reason why the progress achieved had not been still more considerable was, first, because of financial difficulties, and, secondly, because of the indifference shown by the administrations of rural districts towards health matters. Personally, M. Velghe would be in favour, not of an interchange visit of sanitary engineers, but of a course on the lines suggested by Professor Pittaluga, that was to say, a course to be taken by persons of all kinds interested in the hygiene of rural districts. During that course, all the aspects of the problem of improving health conditions in villages would be examined. What was essential was to inculcate health habits in the peasant population, and the problem really amounted to this : How was the mentality of the rural population to be changed ?

If the Committee adopted the proposals of the Medical Director, it was at least advisable that the interchange visit should not be confined to sanitary engineers, but that each health administration should be allowed to choose the persons who appeared to it to be the best qualified to help it to benefit from such an interchange visit.

As far as the second suggestion was concerned, M. Velghe had no observations to make. On the other hand, he desired further information regarding the third proposal concerning milk control by veterinary surgeons. He did not quite understand the exact object contemplated. In Belgium, at any rate, the veterinary surgeon, apart from the examination of cattle, was in no way concerned with the supply of good milk to the population. Milk supervision was a

municipal question, and was entrusted to chemists and bacteriologists. In any case, he thought that, before organising the proposed interchange visit, preparatory work would have to be carried out and, if necessary, certain Governments would have to be asked what the practice in their countries was in regard to milk control.

Dr. CHODZKO agreed with the view of Professor Ottolenghi that professors of sanitary engineering should take part in the interchange visit. He thought, indeed, that this was also the view of the Medical Director. Nevertheless, to include such persons would not suffice to create that unity of thought between hygiene specialists and sanitary engineers. This task belonged to professors of hygiene, and Dr. Chodzko had been informed by the hygiene specialists and sanitary engineers that it was in those schools of hygiene where health problems were dealt with from the technical and economic point of view that their eyes had been opened to questions of which they had been ignorant. The Health Committee should draw the attention of all health administrations to the usefulness of encouraging all sanitary engineers to take an interest in the teaching of hygiene. It would, indeed, be impossible to group all sanitary engineers into an interchange visit.

Dr. CARRIÈRE supported the observations of M. Velghe with regard to sanitation in rural districts. The problem in Switzerland was more or less the same as it was in Belgium. What the peasants must be taught was not so much the principles of sanitary engineering, but the principles of hygiene proper. He would support, therefore, the idea put forward by M. Velghe to the effect that the scope of the proposed interchange visit should be widened in order to make it possible to include persons dealing with rural hygiene, not only from the point of view of sanitation, but also from the general point of view.

Dr. Carrière also supported the proposals of M. Velghe in regard to the question of milk control. It was also the case in Switzerland that veterinary surgeons, at present, only played a very small part in such control. Without, therefore, excluding veterinary surgeons from the contemplated interchange visit, persons whose special duty it was to deal with milk control, inspectors of foodstuffs, local experts, etc., should also be called upon to take part in the visit. In the course of general interchange visits, an investigation had already been made regarding the control of foodstuffs, but it had not been possible for that investigation to be more than superficial. The systems of control varied considerably according to countries. It would be useful to devote an interchange visit of specialists to the question of milk control, and perhaps also to the control of foodstuffs in general. If the Committee were to decide on such an interchange, it would be particularly welcome in Switzerland, where an especially effective system of control had been achieved.

Dr. STAMPAR entirely agreed with the proposals of the Medical Director. Up to the moment, as far as interchange visits were concerned, general health problems of interest to industrial countries had mainly been considered. It was necessary, however, also to deal with countries of which the population was mainly peasant, and in this respect the statement of the Medical Director was of special importance to his country. The problem confronting the administration of the Kingdom of the Serbs, Croats and Slovenes, as was the case in other agricultural countries, was concerned with the peasant population, whose situation must be improved. Such a problem was quite different from that concerning industrial countries. The health problem in rural districts comprised the following essential elements : food, water, housing and latrines. The rural population possessed all that was necessary for food in abundance, but it was ignorant of the best way of preparing such food. As far as water was concerned, its importance in connection with health was well known. The importance of cleanliness in the house and the frequent danger created by latrines was also well known. All these problems, which might appear petty, were, in actual fact, of capital importance in connection with rural sanitation. It was in this direction that his Government was making every effort in the villages, and the problem was an imperative one for the administration of a country of which 90 per cent of the population were peasants. The village doctors must not rest content with knowing how to treat the sick ; they must also, if necessary, be able to count upon the support of the agricultural engineers, the veterinary surgeons and the various technical experts, with the object of dealing with problems of capital importance and their application to everyday life.

A great deal was done in connection with the treatment and cure of disease, but nothing was done to prevent persons from falling ill. The ravages caused in an agricultural country by disease were well known, however, and Dr. Stampar would remind the Committee, to give an example, of the grave epidemic of typhus which had broken out in Canada, and the epidemics which had broken out in Hanover.

There was another grave problem as regarded his country. This concerned the reform of medical studies, and in this respect the chief obstacle was the method in use in Europe at the present time in connection with such studies. Europe was at the moment in the throes of a grave moral and economic crisis, and had not yet been able to assign to doctors the part which they ought to play in social biology. They should be shown the proper path to take, and they should be helped out of their present difficult situation. If the present state of affairs were not reformed, the battle would be lost.

Finally, another important question was that of insurance against disease. Many large workers' organisations were already in existence in this field in the Kingdom of the Serbs, Croats and Slovenes, but a health insurance scheme should be drawn up in order to prevent individuals from falling ill. The Medical Director's statement had been most apposite. Specialists should be sent to study on the spot the various problems which arose.

Dr. JITTA also congratulated the Medical Director on his statement, which contained a certain number of points of particular interest to the Netherlands.

Rural hygiene in his country was still backward owing to the ignorance of the population. The problem of drinking-water was particularly difficult to solve and much excellent work in connection with general hygiene remained to be done with the object of destroying, by means of useful propaganda, the prejudices existing in this respect.

The milk question was of great interest to the Netherlands. A law on foodstuffs required the establishment in various parts of the country of specially equipped laboratories. At the moment there were about ten of these laboratories in existence. Great progress had been made with regard to milk control. Perhaps, in connection with the contemplated study tour, mention should not be made of veterinary surgeons. In the Netherlands, these were not the principal persons employed in milk control. This duty devolved on chemists, the directors of laboratories, etc. — in other words, the persons who had been specially trained for it. Perhaps, instead of mentioning veterinary surgeons, the Committee could refer to experts in the control of foodstuffs or of milk. If an interchange visit were to take place on this subject, it would be warmly welcomed in the Netherlands.

Dr. HAMEL said that Germany had given special attention in recent years to the question of milk control. Its importance in connection with epidemics of typhus and paratyphoid was realised. In order to be certain of avoiding epidemics of these diseases it was necessary to supervise the milk from the moment of its production to the moment of its distribution. It was not only a question of chemical control but of uninterrupted control from the stable right to the delivery of the milk in the towns. For this purpose it was necessary also to have a special veterinary staff. Veterinary control was particularly important in connection with the preparation of a special milk for children. The question of perfecting the process of pasteurisation had not been neglected. Special apparatus for the pasteurisation of milk had been carefully studied by the Health Department of the Reich and other institutions.

The medical and chemical aspect of the question of the control of milk was obviously of particular importance, but veterinary surgeons also had a part to play in their own field. They worked hand in hand with doctors and chemists with a view to the better organisation of the necessary system of control.

The question of the absence of relations between doctors and sanitary engineers had often been discussed. In Germany, an endeavour had been made to remedy this state of affairs by organising " days in common " for health experts and technicians, during which the various problems were studied from the point of view of health and from the technical standpoint. Each " day " was devoted to a question of up-to-date interest. The subject discussed on the last day in 1927 had, for example, been the " modern house and the construction of roads ". As M. Velghe had pointed out, it was important to overcome the ignorance of the rural population in matters of health. In order to arouse the interest of the people in health questions, " health weeks " had been established during which a special campaign of propaganda in connection with health problems had been carried out. Thus, for example, a " health crusade " had taken place in the country in Germany last year. It was called " fly week ". On the basis of this practical example, an effort had been made to arouse the interest of the rural population in the care of the health. Other questions, for instance, personal cleanliness, drinking-fountains, latrines, etc., were being studied on the same lines. In all villages, even the most remote, permanent committees, presided over by doctors or other persons interested in health problems, were being organised. Dr. Hamel would refer in this connection to the Health Museum of Dresden, which organised exhibitions in small or large towns lasting for two or three weeks. These exhibitions were accompanied by lectures, film displays, sermons in the churches, talks in the schools, etc.

The PRESIDENT, in view of the interest of the present discussion and the utility of continuing it, suggested that it should be provisionally adjourned and that the Committee, in order to profit by the presence of Dr. Barreto, should discuss the results of the mission to Latin America carried out by the President and the Medical Director.

Sir George BUCHANAN asked that, before the discussion was begun on the proposals of the Medical Director, a statement of these proposals be distributed to the members of the Committee.

*These proposals were adopted.*

### 326. Report of the President of the Health Committee and of the Medical Director on their Technical Mission to certain Latin-American Countries.

The PRESIDENT began by thanking, in the name of the Medical Director and in his own name, the Governments of the countries visited for the welcome which they had given to the representatives of the Health Committee. He also thanked the Latin-American members of the Committee, Dr. Alfaro and Dr. Chagas, whose influence and popularity were obviously very great in their own countries. Finally, he would thank Professor Clementino Fraga, General Director of the Public Federal Health Service of Brazil, and his colleagues. He would welcome the presence of Dr. Barreto, Professor Mackenna, Dr. de Paolo Souza and Dr. Zwanck. He called upon the Medical Director to make his comments on the report (Annex 142 *b*).

Dr. RAJCHMAN reminded the Committee that its President and himself had been sent to Latin America in the first place to take part at a meeting of experts on child welfare at Montevideo, and with a view to pursuing in Latin America the enquiry into infantile mortality begun in certain European countries.

The members of the Committee had before them the report on the meeting at Montevideo, where it had been decided to adopt, in connection with the enquiry, the same methods which had been adopted in Europe. The countries chosen were Chile, Argentine, Uruguay and Brazil.

The preparatory stage of the enquiry was already very advanced in certain of these countries. The health officials had been instructed to co-ordinate the enquiries, and the members who had attended the meeting had asked that Dr. Olsen, of the Secretariat, who had already done similar work in connection with the European enquiry, should be placed at their disposal.

As was emphasised in the report, the subject chosen by the Committee for its preliminary work in Latin America had been of a particularly fortunate nature. The question of infantile mortality was of very great interest to public opinion in that part of the world, not only among health specialists and in the Press, but also among statesmen. The Medical Director had been particularly impressed by the knowledge of these problems shown by statesmen in Argentine, Uruguay and Brazil.

He would merely draw the attention of the Committee to the main points of the report.

The President and the Medical Director had taken advantage of their journey to examine, first, with the assistance of the two other South-American members of the Committee and then with the representative of the health administration of the countries visited, the manner in which technical co-operation between these countries and the Health Organisation could be developed and perfected. They had at the outset realised that the everyday activity of the Health Organisation was very little known in that continent. The same fact had been noted in Europe four or five years previously. As far as overseas countries were concerned, the League of Nations was still in a large degree regarded as a theoretical conception. The Latin-American members of the Committee had agreed that it was necessary to make known the various activities of the Health Organisation so that that part of the world could profit by the experience already acquired.

The Medical Director mentioned among other matters a problem which would have to be examined in detail — the prevention of venereal diseases. He had been happy to note, on the other hand, that the health administrations of the countries visited had themselves made suggestions with a view to establishing more tangible and organic co-operation with the Committee. These suggestions had been discussed at the last Assembly and forwarded to the Committee by the Council.

*Argentine.*

In order to achieve a practical result with regard to the enquiries into infantile mortality, Dr. Alfaro had thought that it would be useful to establish at Buenos Aires a centre, not of puericulture, but of instruction for doctors, subordinate staff and visiting nurses. It had not proved necessary to establish an entirely new organisation for this object, for the Argentine possessed a series of magnificent institutions of medical assistance and infant welfare. The organisation of the contemplated centre would only constitute the first step. Later, rural demonstration stations would be established through the action of the Governments, provinces, communes, etc., in districts where infantile mortality was particularly high, or in districts towards which the current of European immigration flowed. Dr. Alfaro proposed that the school in question should be placed under the auspices of the Health Organisation in the three following ways :

(1) Discussion between the Health Committee and the Governing Body of the school on the executive programme of the latter and the submission of an annual report on its work.

(2) The grant by the Health Committee of a certain number of scholarships to make it possible for the doctors of other countries to study at this demonstration school.

(3) The despatch by the Health Committee of technical experts capable of taking part in giving instruction, in the studies and in the practical work of the centre, etc.

The scheme had the complete support of the Federal Government. At the request of Dr. Alfaro, a detailed discussion of this matter might take place at the April session of the Health Committee at which he would be present.

*Brazil.*

Two other suggestions had been examined by Professor Chagas and Professor Clementino Fraga.

Two years previously, a course of higher education in health matters had been established at Rio de Janeiro and this course was to be transformed by law into a school for the teaching of hygiene, comprising two years' study followed by field work. This school would confer Hygiene Degrees on Brazilian doctors. It would serve especially to increase the numbers of the very remarkable staff of the Brazilian Health Service. In this connection, the intervention of the Committee might be particularly effective. In conformity with the idea proposed by Professor Léon Bernard, an international character might be conferred on this instruction in hygiene by placing it under the auspices of the League of Nations in the three following ways :

(1) Discussion of a programme of instruction with the Health Committee and the submission of periodical reports on the working of the centre.

(2) The participation of foreign lecturers despatched by the Health Committee who could remain for several months at Rio de Janeiro.

(3) The setting aside of certain sums out of the interchange-visits budget for scholarships for non-Brazilian doctors.

The second proposal had grown out of the various suggestions made by Professor Chagas, who was particularly interested in leprosy, a problem of special importance in several countries of South and Central America. Professor Chagas, while realising that it was impossible to place the campaign against leprosy on an international basis, had urged the organisation of an international study on the manner in which this disease was transmitted. For a long time, the problem had remained within the hands of health administrations, but had been very

little studied by investigators with experience of modern methods. Professor Chagas asked the Health Committee to seek means to achieve a scientific international co-operation in this field, which was still so little explored by methods of modern experimental medicine. The Brazilian Government would guarantee the necessary credits and the assistance of the various institutions formed for the purpose of leprosy research and study on the spot. The Health Committee would be asked to find an expert in agreement with the special Committee established in Brazil, who would study the problem there. The great Brazilian philanthropist, Guinle, would guarantee a sum amounting to as much as 10,000 dollars a year to finance the working of the proposed centre.

*Uruguay.*

It would be possible to achieve a very interesting co-operation between the health administration of Uruguay and the Health Committee in the field of sickness insurance. The considerable efforts made by this country in connection with medical assistance were well known, but the moment when its expenditure on health matters would become too heavy could be foreseen. The system of sickness insurance was beginning to develop in Uruguay.

Finally, it was to be noted that the young men of the country showed an increasing tendency to adopt the medical profession. A whole series of factors were causing the question of the health reform of the country to become urgent. The Government of Uruguay was ready to make it possible for the Chairman of its Health Board to come to Europe for six months, if necessary, to co-operate with the Health Organisation in order to study its work in detail and, at the same time, to make it possible for that organisation to profit from the experience gained in his own country in connection with medical assistance.

Dr. Tsurumi congratulated the President and the Medical Director on the very close connection which they had been able to establish between the League and the various Latin-American countries. Most of the work of the League, and especially in the political sphere, was in practice restricted from a geographical point of view. On the other hand, the work of the Health Committee should be of interest to the whole of mankind. This work had extended as far as the Far East, and the time was come to ensure co-operation with the countries of Latin America in order to accomplish something which was really worldwide. Dr. Tsurumi was happy to learn from the reply of Dr. Mackenna to the Assembly that Professor Saiki had been warmly welcomed in the countries of Latin America. On behalf of his Government, he warmly thanked the competent authorities of those countries. He would also congratulate the Government and the health authorities of Chile, who had decided to establish an institute similar to the Imperial Institute of Tokio for the investigation of problems of nutrition.

He would express the hope that the links already in existence in the field of medical science would grow increasingly stronger and that interchange visits would continue to occur frequently between the countries of Latin America and Japan under the auspices of the League.

He added that leprosy was unfortunately a frequent disease in Japan and that much was being done in regard to its scientific investigation. If a Committee of Experts were to be established, he asked the Health Committee not to forget the Japanese experts.

Professor Pittaluga had the good fortune to make almost the same journey as that of the President and the Medical Director and was in a position to appreciate the value of the statement which had just been made. It contained a very interesting programme and, in general, the Health Committee could approve it.

The defective knowledge possessed by the medical public of Latin America of the work of the Health Organisation was closely connected with the problem of making known the work of the League by propaganda. He reserved the right to submit, before the end of the session, a definite proposal concerning the technical means to be used to make the work of the Health Organisation better known.

In the report of the President and the Medical Director, there was a reference to the convening of a new Conference of investigators into infant mortality during the first six months of 1928. He thought that too much insistence should not be laid upon fixing a date, so that the organisers might have time to prepare thoroughly for the necessary consultations.

The time factor must always to some extent be a governing consideration in all that concerned the relations between the Health Organisation and the health administrations of Latin America. It was advisable to have confidence in the heads of the public health departments in those countries.

The scheme for an institute on leprosy deserved to be thoroughly discussed by the Health Organisation upon general lines, which the Health Section would propose, as regards the co-operation between European and Brazilian experts. A more detailed discussion might also take place in April on the problem of venereal diseases. The fundamental point was the desirability of revising the methods of rapid treatment which were evidently necessary in certain countries in order to prevent serious epidemic outbreaks of these diseases, but which did not perhaps give sufficiently good results from the demographic and sanitary points of view.

The centre of enquiry in Buenos Aires on infant mortality and maternity was doubtless destined to serve as a basis for a considerable institution, which might perhaps be completed with a view to yielding international results if the proposed agreement were achieved. He would suggest that, on the council of that institution, a representative of the administration of the primary schools should be appointed. The administration of the primary schools at Buenos Aires was one of the most remarkable in the Argentine, and the collaboration of teachers might render the greatest services in that field.

Dr. Lutrario congratulated the President and the Medical Director on their report and on the work which they had done. Referring to the enquiry on infant mortality, he drew

attention to the considerable source of error which resulted from lack of uniformity in the definition of mortality at birth. The Conference of Experts on Child Welfare, held at Geneva in October 1926, had recommended that the methods of registering infant deaths should be unified in accordance with the proposal of Professor Rott and Professor Gini.

The meeting which had been held in Paris in 1927 had urged the universal adoption of the definition of mortality at birth recommended at Geneva. Several Governments, owing to their internal regulations, had not been able to adopt that definition, and he emphasised with examples the considerable mistakes which resulted from the lack of uniformity. If the definition in force in the majority of other countries were adopted in Italy, infant mortality in that country would seem to be much less high. He would recommend that, at least during the enquiry and in the districts visited, the definition suggested by the League of Nations should be adopted.

Collaboration between Latin America and Europe might be usefully established for the regulation of health at sea. The members of the Committee who had been present at the Health Conference at Paris had noted the great difference which existed between American and European methods. That difference resulted in considerable impediments to commerce. It was desirable to organise an interchange on the methods of regulating health at sea, in order that the two systems might be brought nearer together.

Sir George BUCHANAN had been glad to receive the original copies of the report of the President and the Medical Director on this subject, in time to report on it to the British delegation at the last session of the Assembly, and encourage that delegation to support the principle of their proposals. The circumstances were exceptional. The League of Nations desired, for the purposes of the League, to secure closer contact with the Latin-American countries, and to do so through its technical organisations. Consequently, a special mission was sent to South America, and the Health Committee could not have been better represented. The fact that the proposals before the Committee had been settled with the sanitary authorities of the countries visited made their acceptance easy. Although at this session there were no members of the Health Committee present who came from Latin America, their concurrence could be fully assumed, and it was noteworthy that the South-American delegations at the last session of the Assembly were strongly in favour of these projects. If this exceptional work had to be financed from the general budget of the Health Organisation, there might have been some difficulty in according it priority over other work. But the financial question did not arise, as the Assembly itself had voted extra credits for this Latin-American co-operation. Nevertheless, the League of Nations was asking the Health Organisation to undertake a very responsible task, and it was for that organisation to live up to these responsibilities. Great attention should be given to the choice of the persons designated, so that the work undertaken would produce substantial results to the credit of the League. Persons going from Europe to South America, often for a long time under these schemes, should be properly remunerated either by the League or by the countries themselves.

He asked what procedure was to be adopted in the matter. Was the Committee, during this session, simply going to approve the general lines of the programme and take the individual proposals later as the opportunity for action arose ? Would the officers of the Health Section be sole judges of this opportunity, or would the Committee be called upon to discuss it ? There seemed to be some matters on which it would be useful to have the opinion of the Committee, for example, in regard to the kind of action to be taken, or individuals to be appointed, when dealing with leprosy and venereal diseases. Members should be left sufficient time carefully to think over these questions if they were to help the Bureau or the Secretariat in the choice of the most competent people.

Professor Léon BERNARD said that, like Professor Pittaluga, he was able, owing to his previous journey in Latin America, to appreciate the value of the report of the President and the Medical Director. He would make a single reservation in regard to the statement of the Medical Director. He did not think that the work of the League of Nations was so seriously under-valued in Latin America. At Rio de Janeiro, in particular, he had been present at an enthusiastic demonstration in favour of the League of Nations, organised by the Minister of Public Instruction in Brazil and all the Federal Universities. Doubtless, the work of the Health Organisation had not extended beyond the province of health experts and the official world, but that was almost equally true in Europe. He thought that the ground was well prepared for co-operative action between the Health Organisation and the South-American health administrations.

He had done his best to fulfil the mission which had been entrusted to him with a view to bringing about agreement in regard to instruction in health subjects. He had noted a unanimous desire in those countries to associate themselves with the work done at Geneva, and there was considerable enthusiasm there in favour of health activities. In Brazil, in Uruguay and in the Argentine, there was the same determination, not only among the public administrations, but also among private persons, to improve public health, and he would, in his turn, pay a tribute to the philanthropist Guinle, and express his admiration and gratitude to the three countries of Latin America which he had visited. He thought that his colleagues would be unanimous in associating themselves with the detailed proposal submitted to the Committee.

Dr. HAMEL associated himself with the compliments addressed to the President and the Medical Director. Co-operation between the Committee and Latin America could not fail to produce excellent results. The German scientific world would welcome with pleasure any efforts made with a view to carrying out the programme contemplated in the countries of Latin America.

Dr. RAJCHMAN replied as follows to the observations of the various members of the Committee :

To Professor Pittaluga : He agreed that a precise date should not be fixed for the next Conference in Infant Mortality on Latin America. He had drafted his report before knowing that Chile did not wish to begin enquiries before the first months of 1928. Moreover, those Conferences would merely consist of an exchange of views between experts according to the procedure adopted by the European investigators.

To Dr. Lutrario : (1) In regard to the meeting at Montevideo, it had been decided to adopt for the enquiry the definition laid down by the Health Committee. (2) The important question of the regulations relating to health at sea might be examined in the presence of Dr. Alfaro and Dr. Chagas.

To Professor Léon Bernard : Doubtless the work of the League was well known in Latin America, but the technical work of the Health Committee was not so well known there as in Europe, owing to the fact that few South-American experts found it possible to keep in touch with the detailed activity of the Committee, whereas, on the contrary, other countries were represented in greater numbers on the Committee, and numerous experts belonging to those countries were directly engaged in its technical activities and ensured a wider knowledge of the work which was being done.

To Sir George Buchanan : The procedure to be followed was twofold. The Committee must first decide as to the technical utility of the proposed collaboration. The question of the possible conclusion of arrangements with the Aregentine and Brazil with a view to placing certain institutions under the auspices of the League was a question within the competence of the Council. It was clear that, if the Council accepted the recommendations of the Committee and entered upon detailed negotiations with the Governments, it would still have need of further advice. If the Committee accepted the proposals, it would communicate them to the Council, and the Council would be asked to examine favourably the conclusion of the agreements in question with the Governments concerned and would be responsible for concluding those agreements.

In regard to the practical steps needed to carry out the resolutions to be adopted by the Committee, it was necessary to distinguish between the Argentine scheme, the examination of which in its technical details must be reserved until the arrival of Professor Alfaro, and the Brazilian scheme, the detailed execution of which would require further correspondence between the Committee and Dr. Chagas. It would be difficult to do anything definite before Dr. Chagas had notified the Committee of the constitution of the proposed school in its new form. The study of leprosy, on the other hand, was now in progress. Perhaps Dr. Chagas would inform the Committee that he was ready at once to begin to co-operate with an expert appointed by the Committee. To make that appointment, the Bureau would probably wish the Medical Director to get into touch with the representative of the Committee in the country from which the expert would be invited. As to the scheme of collaboration with Uruguay, it was clear that the official of that country who was coming to Europe for the purpose would be cordially welcomed by the Committee.

The preliminary draft resolution was read, in which the Committee generally approved the proposals submitted to it.

*It was agreed that the preliminary draft should be distributed to the members of the Committee and submitted for their final approval at the following meeting.*

## FIFTH MEETING

*Held on Wednesday, November 2nd, 1927, at 10 a.m.*

*President :* Dr. MADSEN.

### 327. Report of the President of the Health Committee and of the Medical Director on their Technical Mission to certain Latin-American Countries : Adoption of a Resolution.

The following draft resolution was submitted :

" The Health Committee,

" Having considered with the greatest interest the report submitted by its President and the Medical Director on the mission which they have accomplished in Latin America :

" Expresses its satisfaction at the welcome which was given to its delegates and at the collaboration between various South-American countries and the Health Organisation of the League of Nations which has resulted ;

" Approves the programme prepared to give effect to that collaboration, and considers, in particular, that the technical collaboration with the countries of Latin America will

be given an enduring basis by means of arrangements such as have been suggested by the Brazilian and Argentinian authorities in regard to the study of leprosy, the problem of infant welfare and the organisation of international post-graduate instruction in hygiene ;

" Is prepared to discuss with Professor Araoz Alfaro and Professor Carlos Chagas the details necessary to put the arrangements provided for in these proposals into practice ;

" Meanwhile, requests the Council of the League of Nations to be good enough to seek a method of concluding such arrangements with the countries concerned as to enable the schools and the study centres established in Argentine and Brazil to be placed under the auspices of the League of Nations ;

" Notes with satisfaction that the Government of Uruguay is ready to collaborate closely with the Joint Commission of Experts for the Study of the Relationship between Public Health Services and Health Insurance Organisations, and in particular that the President of the National Health Council of Uruguay is prepared to come to Europe in order to keep in touch with the work of that Commission."

Sir George BUCHANAN noted that, by the terms of the draft resolution, the Committee was asked to approve in principle the conclusion of formal agreements with various countries for carrying out some of the proposals which had been submitted including the placing of institutes under the auspices of the League. As it was for the Council to decide whether such should be the method to be followed in carrying out those proposals, was it advisable for the Committee to bind itself in advance by a decision which might not perhaps be carried out. It had been noted at the Assembly that there was a general tendency to avoid anything that might entail a permanent charge on the League of Nations. It could not yet be known whether the procedure suggested was one which the Council would consider desirable.

Professor Léon BERNARD believed that all his colleagues were agreed on the substance of the resolution. Perhaps it would meet the views of Sir George Buchanan if, in the third paragraph, the words " will be given " which had an imperative character were replaced by the words " would be given ".

*The draft resolution thus amended was adopted.*

**328. Examination of the Report of the Medical Director on the Work accomplished since the last Session of the Committee** (continuation).

*Conference held at the inauguration of the Schools of Public Health at Budapest and Zagreb: Report by Professor Léon Bernard (Annex 146). Interchange Programme for 1928* (continuation).

Professor Léon BERNARD asked why the Committee had been provided with a report of the Secretariat on the Conference concerning Schools of Public Health (document C. H. 659) in addition to the report which he had made.

Professor PITTALUGA, referring to Chapter II of Professor Léon Bernard's report thought that, among the persons who should be induced to take part in the courses of the health schools, engineers should be included. An alternative would be to give health courses in engineering schools. Last year, the School of Roads and Bridges in Spain had invited a certain number of professors, of whom he himself had been one ; one of them, Dr. Luengo, gave a course on the relations between preventive medicine and civil engineering. Perhaps that procedure was more practical than inviting engineers to attend public health schools. It was necessary to discover by what methods the most effective results would be obtained and it seemed that the Committee might urge Public Health Administrations to realise the necessity for acquainting engineers generally with problems of public health, whatever method might be employed.

Professor OTTOLENGHI wished to know what exactly were the relations of the Health Committee and the schools which had been inaugurated at Warsaw, Budapest and Zagreb. It was necessary to ascertain the position before deciding to what extent the Committee could interest itself in the work of these schools.

There had been distributed to the members of the Health Committee the document concerning the competition discussed at Zagreb. Did that note come from the Secretariat ? He believed that the competition in question was a purely domestic concern of the public health schools.

He would emphasise the importance of this competition. Perhaps the conditions contemplated for it would give rise to certain observations, but it was first of all necessary to take a decision as to the question which he had just raised.

In reference to the note on the programme of interchanges for 1928 (Annex 147), he would like to explain further certain points in connection with his observations of the previous day.

He had agreed that the interchange of sanitary engineers should deal with rural sanitary engineering, but it must be understood that, if the Committee decided to begin with that interchange, its decision was due to the immediate interest of certain countries in that subject. The list of countries indicated in this document as agricultural countries in Central and Western Europe was too limited ; there were many others, including Italy, where agricultural life was just as important. He hoped that the Medical Director would take his observation into account, so that, at the proper moment, countries other than those mentioned might derive advantage from that kind of interchange, which would no doubt be very useful.

Concerning the questions of rural hygiene, he recommended that, in the programme, an important place should be given to the problem of housing. It was on this question, in fact, that the health conditions of villages were based. Reference had been made to the possibility of an interchange in Italy. It was to be hoped that, on that occasion, time could be found to draw the attention of the participants to some examples of really modern and hygienic rural houses that were built either by their owners or by an enlightened administration.

Professor Ottolenghi also wished to repeat his observations of the previous day on the utility of providing for the participation in the interchanges on sanitary engineering of persons giving instruction in health matters as well as those giving instruction in technical sanitation. He ventured to insist on that point as no account seemed to have been taken of his observations in the note on the 1928 programme. He wished to remind the Committee that no general and rapid progress in sanitary engineering could be hoped for if the schools where engineers were trained did not participate. It was, above all, a question of education and culture; nevertheless, it was necessary to give the professors a chance of seeing for themselves the improvements brought about in various countries with regard to all questions of sanitary engineering.

If there were some difficulty in inviting directly professors to the interchanges, it might be possible, as usual, to call on health administrations, pointing out that it would be desirable for them to designate also professors of hygiene and technical sanitation.

It was said in the same note that the programme of this interchange " should be prepared by experts in sanitary engineering, etc.". He felt that that expression should be understood in a wide sense and should apply to health officers as well as to engineers, as it was by an agreement between these that the programme could best be drawn up.

It was also said in the same document that the study would take place in the Kingdom of the Serbs, Croats and Slovenes, and further on in paragraph (*c*) " that it would bear upon various experiments in bonification made in the Kingdom of the Serbs, Croats and Slovenes Hungary and Poland". Were these two indications not in contradiction with one another ?

He was decidedly in favour of the interchange on the control of the milk supply, which was a question to which health administrations were giving increasing attention. On the previous day, at the meeting of the members of the German interchange, it had been said that the most important work done in the control of milk had been achieved in the United States.

In that country, very extensive and valuable documentation had been collected on all questions connected with the vital problem of milk and particularly on pasteurisation. It was also well known that, in certain countries of Europe, a few years ago this problem had been the subject of important researches and practical experiments. It would therefore be unquestionably useful to organise an interchange in these countries to enquire directly into the systems for ensuring supplies of pure milk.

The desirability of including veterinary experts in this interchange had been discussed. It was quite evident that their assistance was particularly necessary for certain questions, among which he might mention prophylaxis of tuberculosis and other transmissible diseases of milch cows. Clearly, in addition to the above, other experts should attend the interchange such as bacteriologists, chemists and health experts. In other words, this interchange should include representatives of all categories of technicians who, in various countries, were called upon to solve the practical problem of ensuring the milk supply.

Dr. RAJCHMAN, replying to Professor Léon Bernard, explained that the note of the Secretariat concerning the Conference at Zagreb should merely be regarded as a substitute for the Minutes of that Conference for the information of the Committee. It was not in any way designed to complete the report of Professor Léon Bernard and would be suppressed.

Replying to Professor Ottolenghi, he explained that the note on the competition was not prepared by the Health Section. It came from one of the health schools concerned and had only been communicated to the members of the Committee to give them an idea of the competition in question.

As regarded the relations between the Committee and the health schools, there was no organic bond between them. He would remind the Committee that, last year at the opening of the first health school at Warsaw, a resolution had been submitted asking that the Committee should sometimes arrange meetings of the directors of the health schools. Those schools, however, had never asked the Committee to intervene in connection with their working. Nevertheless, at Budapest and Zagreb, as was said in the report of Professor Léon Bernard, three special proposals had been submitted to the Committee concerning preventive immunisation against scarlet fever, investigations on the Wassermann reaction and experiments in oral vaccination against typhoid. There was, moreover, the question of the competition.

In regard to the interchanges, he would observe, in reply to the observations of Professor Ottolenghi, that Italy had participated in all the interchanges from the outset and that it could not be said that the Health Section had been guilty of an omission in that connection. If Professor Ottolenghi so desired, he would add, in the Chapter of the note on the 1928 programme entitled " Study of Problems of Sanitary Engineering", the name of Italy among the Western European countries which had not yet found a definite solution for problems of sanitary engineering in their rural provinces. Italy would certainly be invited to the new interchange as she had been invited to all previous interchanges.

Clearly, the problem of housing had special importance in connection with rural health, but, as it had been emphasised in the note in question, it was necessary to make a selection among the subjects. For that reason, it had been proposed to limit the interchange to problems of sanitary engineering. The Health Committee took all the more interest in the question of urban sanitary engineering, as two or three years ago, on the proposal of Dr. Lutrario and M. Velghe, an interchange had taken place on that subject.

The participation of health professors in the contemplated interchange would be extremely interesting and the Medical Director had himself suggested it two or three years ago. The carrying-out of that proposal, however, would be difficult. It would be necessary to ascertain to what experts it would be necessary to have recourse.

The paragraph in which it was said that the programme of study would be prepared by experts on sanitary engineering was intended to cover both sanitary engineers and sanitary administrators.

Professor OTTOLENGHI had not intended to reproach anyone in the Health Section. He had merely wished to point out that it was not necessary to make any special distinction, as regards problems of rural sanitary engineering, between Eastern Europe and the rest of Europe. There were countries almost everywhere where these problems were of great importance, and this should be taken into account when preparing the programme of the interchange and selecting participants.

The PRESIDENT entirely approved the proposal relating to the interchange on rural sanitary engineering. The problem was of great importance for all countries, including Denmark, although in that country rural health was fairly well developed.

He had himself been originally responsible for the proposed interchange on the control of milk, which was a matter of keen interest to health administrations. The more epidemiology was studied the more it was realised that the centralisation of the milk supply involved dangers, not only from the point of view of typhoid fever, but in respect of other infectious diseases, particularly streptococcic infections. It appeared that a great number of small infections were due to milk and that an investigation was necessary regarding the steps to be taken. These would include the supervision of the health of cows, cleanliness of stables, the handling, transport and treatment of milk, etc. In Denmark and in Germany, almost the whole of the technical control was in the hands of veterinary officials. The system was different in Belgium, Switzerland, etc., and a study tour would be extremely instructive. It would be of great utility to secure the participation of veterinary officials in the interchange. The part which they played in the control of milk in Germany had been explained clearly and at length on the previous day at the interchange meeting. Very many diseases arising from milk came from cows, and the collaboration of veterinary officials was indispensable in that connection as well as in connection with everything which concerned the various diseases of cattle.

Dr. LUTRARIO said that he had insisted on the necessity for collaboration between health experts and engineers because, in his country, the dangers resulting from the absence of such collaboration had been realised. An endeavour was now being made to organise close co-operation between them and excellent results had thus been obtained. There was, moreover, a problem which arose for all countries, namely, the desirability of instructing engineers in health questions. At that moment in Italy, engineers were obliged to pass examinations in such questions. Other special measures had been adopted. Thus, a section of sanitary engineers would henceforth be attached to the General Health Department of Italy. He had himself formerly endeavoured to arrange for engineers to obtain health laboratories and that system had given good results. Similarly, on all committees and other bodies which dealt with matters affecting the two classes of subject, health experts and sanitary engineers were represented, as, for example, in the Supreme Council of Public Health. In arranging for such co-operation, however, an endeavour had always been made to give greater prominence to health considerations, and all the various activities, whatever their importance, were approved by the General Director of Public Health.

In regard to the control of milk, he agreed with the President as to the necessity for inviting veterinary officials to the interchange. Italy was doubtless the only country in which the Veterinary Department was dependent upon the Director-General of Public Health.

M. VELGHE, replying to an observation of Professor Ottolenghi, explained that he had never had any idea of desiring to replace the interchange on the control of milk by a work of documentation. Similarly, he had never thought of excluding veterinary officials from the proposed interchange. He merely protested against the idea of reserving that interchange for veterinary officials alone. Not only was he, like Dr. Lutrario, in favour of a close co-operation between veterinary experts and doctors, but he believed that health, far from being the monopoly of one profession, should be a matter of concern to the whole social body.

While generally approving the note on the programme for 1928, he regretted that an interchange was contemplated which would be limited to rural sanitary engineering. He would have preferred the interchange to bear upon rural health in general. He did not insist on that point, but supported the request of Professor Ottolenghi concerning the study of the housing problem, which was evidently part of the problem of rural sanitary engineering. Not only must the question of the housing of the peasants be considered, but that of the outbuildings, which very often gave occasion for misgiving, such as ditches for manure, stables, wells, removal of dirty water, etc. He wished to insist that the programme of the interchange should include the subject of rural housing in all its aspects. Other problems of sanitary engineering, such as drains, distribution of water, etc., were not so important in the country, and were not so easy to solve. If, on the other hand, success was achieved in improving housing conditions and outbuildings, immense progress would have been made.

Sir George BUCHANAN thought that the problem of rural health responded to the present needs of a large number of countries and deserved to be studied. In order, however, that the members of the Committee might be in a position to understand the full importance of the proposed investigation, it was necessary that they should know what precisely they were being asked to do. He understood that, as far as Great Britain was concerned, the proposal

was to instruct a highly qualified person to conduct a certain number of foreign visitors around the rural districts in order to show them what was being done in the way of rural sanitary engineering. No doubt this could be arranged, and the visitors to Great Britain could be shown districts where conditions in that respect were satisfactory and other districts which left a good deal to be desired. But the appointment of "leaders", if these were to be British officers, would be difficult, and it would be preferable to leave the matter to the proper authorities of the districts visited.

What would be put into the report which would finally be submitted to the Committee ? It was undesirable for statements and recommendations as to the sanitary condition of rural districts to be made by foreign visitors, however distinguished and expert they might be.

The studies on the control of milk might be extremely useful to those persons who were responsible in the various countries for that control, and who would thus be able to meet and mutually inform one another of what was being done by their respective administrations. The interchange should not be limited to veterinary officials, but should include all persons entrusted with the control of milk. It must, however, be remembered that the nature of the control exercised over milk and milk products depended on the circumstances of each country. The position of an importing country like Great Britain was very different from the position of a country like Denmark, which was so largely dependent on export of milk products.

It was proposed that, at the conclusion of the interchange, a special report on milk control problems should be presented to the Health Committee. He did not see what this report would achieve. The principles that milk should be pure, free from tubercle, cheap, and so on, were all accepted already. But the particular application of those principles depended in each country on local circumstances, and the Committee should avoid reports which encroached on the work of the national administrations or recommend measures which should be applied in a particular country. This was the more necessary as the diversity of the factors of the problem according to the countries would render comparisons extremely difficult. It would be necessary to limit the report to a description of the methods of milk control in force without any formulation of doctrine. And these, in most countries, had been very fully described already.

Professeur Léon BERNARD was glad to note the explanations which had been given concerning the proposed enquiry into rural health. He was happy to see that the purpose of the enquiry was not confined to encouraging the education of peasants in health matters, but that problems of sanitary technique would also be included. The question had a double aspect. It was not sufficient to show a peasant that he lived under bad sanitary conditions. It was necessary to improve those conditions for him.

In regard to medical education, he would point out to Dr. Stampar that it would be wrong to carry too far the scission between curative and preventive medicine. All the members of the Committee would doubtless agree as to the desirability of encouraging the progress of preventive medicine in the minds of doctors, and in securing that health should not be the exclusive concern of a specially trained profession. Nobody could, however, insist upon turning upside down the present system of teaching of medicine. Whatever progress might be made in health matters, there would always be diseases and it would always be necessary to study the sick and even the deceased. An attempt should be made to induce professors of medicine — and it would not be without difficulty — to encourage progress in the new direction, on the condition, howevert, hat the therapeutical science of medicine would not be done away with.

As regards the question of recruiting for health schools, he also thought that engineers should be added to the list given in the report.

Of the various proposals submitted to the Committee, the majority related to the health schools themselves, which the Committee might help in several ways. In particular, the Committee must not fail to take an interest in the periodic meetings of the directors of health schools, and in that connection he would ask whether it would not be well to reconstitute the Commission on Instruction in Public Health, completing it by adding to its terms of reference the teaching of medicine, and asking it to keep in touch with the meetings to which he had referred. On the other hand, there was another proposal which directly concerned the Committee, dealing with the enquiries to be undertaken with its technical and financial support. He insisted on the importance of the suggestion relating to the competition.

The control of milk in France was in the hands of the veterinary officials. Observations previously made by the President on the infection caused by milk were equally valid for France.

In conclusion, he would ask the Bureau to reconstitute in the form which it might deem desirable the Committee on Instruction in Public Health, and to recommend the Committee to adopt the proposals made at Zagreb.

Professeur NOCHT explained that, in general, rural buildings were extremely simple. They were constructed, not by engineers, but by small artisans, who were sometimes themselves the owners of the buildings. It was necessary to make an attempt to educate these people in the new science of rural sanitary engineering. A considerable improvement might be achieved by training experts in the construction of cheap sanitary works in rural regions, and by suggesting a body of rules for the various countries in that connection.

Professor PITTALUGA insisted that the study of rural health also involved the problem of housing. He associated himself with the conclusions of the Medical Director on the theoretical and practical study of rural health, as proposed at Zagreb. In regard to the control of milk, he also supported the observations of the President, and thought that account should be taken of the observations of Professor Ottolenghi and M. Velghe.

As regards the recruiting of pupils for the health schools, it would be well to include engineers, and to insist on the necessity for public health courses in engineering schools.

As regards the relation between the health schools and the Committee, it seemed to result from the explanations of the Medical Director that those relations would be intermittent, and the Committee might take a decision with regard to them as occasion arose.

In regard to the competition, he thought that the Committee should avoid a technical examination, give its approval to competitions of that character organised with a view to solving certain practical technical problems, but these competitions should not, however, be initiated by the Health Organisation.

For the teaching of health and medicine, it would be useful for the Bureau, in accordance with the suggestions of Professor Stampar and Professor Léon Bernard, and the discussions which had previously taken place in the Commission on Instruction in Public Health, to prepare a proposal for submission to the Committee.

Dr. TSURUMI wished to mention two points regarding the programme of interchanges for 1928 :

(1) The problem of nutrition was an extremely important one for every country, both from the sanitary and the economic point, of view, and he suggested the organisations with a view to studying this subject, of an international interchange or international courses, or even, if possible, an international conference.

(2) In accordance with the suggestions which he had made in February, he hoped that the Committee would advise the insertion in the programme of next year of an interchange of doctors in Far-East seaports. If there were any difficulty for financial reasons, he at least asked that the question should be retained for 1929.

Dr. JITTA particularly wished to dissipate the impression that rural sanitation was neglected in the Netherlands. There were difficulties without doubt, particularly with regard to drainage in districts situated below sea level, but, with regard to the houses, there was in existence a sanitary law which also applied to farm buildings. What was imperative was to spread ideas of hygiene among the rural population, in which they were always lacking, especially with regard to drinking-water.

Dr. Jitta was not at all of the opinion that veterinary surgeons should be excluded from the study of milk control, but it was necessary to bear in mind the systems adopted in the different countries. In the Netherlands, the institutions or special organisations were dealing with milk control with the help of veterinaries.

Dr. RAJCHMAN, replying to Sir George Buchanan's observations, said that the " leaders " referred to in the memorandum would be either persons particularly qualified in matters of rural sanitary engineering or public health officials. They would be expected to guide the interchange group in certain chosen countries of Western Europe, then in certain agricultural countries of Eastern Europe, in which very interesting experiments were now being carried out with a view to solving the practical problems of rural sanitation. The report which would be drawn up by these " leaders " would contain no criticism of the countries visited. It would simply formulate proposals addressed to the Committee on what was, in their opinion, the best programme for the Committee to follow with a view to the continuation of this study of rural sanitation.

With regard to the study of milk control, there was no question of criticism or suggestions regarding the methods of control adopted in each country. If the report contained any proposals, they would deal with the best way of organising an international study of the problem.

As regards the competition, the directors of the schools of hygiene of Eastern and Central Europe had decided to organise it among themselves and had requested the Committee to appoint a jury. Evidently, the Committee would have to know the conditions of the competition and it would have to say first if it accepted the mandate which had been offered to it. A simple solution would apparently be to ask the " leaders " of the rural sanitation interchange to act as a jury, that is to say, practically to constitute a Committee of experts.

Replying to a remark of Sir George Buchanan, the Medical Director explained that, if the Committee accepted the request which had been made with regard to the competition, it must stipulate that no commercial consideration should be involved.

The proposal to place the housing problem on the programme of the study of rural sanitation was tempting, but difficult of application. The Health Section would examine the question and do its best.

With regard to exchanges on milk control, the Medical Director observed that all the members of the Committee were in agreement regarding the composition of the group and the character of the report which would be made to the Committee.

With regard to the courses and practical demonstration in the Kingdom of the Serbs, Croats and Slovenes and in Zagreb, Professor Nocht's interesting suggestion should be retained. The minor technicians in question would obviously not take part in the interchange, but they would benefit from it indirectly.

As regards the question of contact with the schools of public health, the proposals made at Zagreb constituted an interesting precedent. The directors of schools of public health had decided to repeat in their countries what the Committee had done in Copenhagen for the serodiagnosis of syphilis and they asked for the high patronage of the Permanent Standards Commission. The question of the value of vaccination against scarlet fever was on the agenda of the Committee (see the report of the Health Experts on Infant Welfare at the Vienna Conference). Here, again, it was a question of the application, in a certain part of Europe, of the

methods of work adopted by the Committee. The question of antityphoid vaccination through the mouth was also being studied by the Committee. Lastly, the organisation of an exchange between hygiene institutes was also part of the general system of liaison initiated by the Committee. Contact with the schools of hygiene would be occasional, but well within the scope of the general activities of the Committee, and it was to be hoped that such manifestations would be repeated in other European countries.

The Medical Director begged Dr. Tsurumi not to insist on his proposal for an interchange of seaport doctors in the Far East, as there was to be an interchange in India in 1928. Perhaps Dr. Tsurumi's proposal might be considered in 1929.

As regards the problem of nutrition, the Committee had decided, in principle, to place it on its agenda, but it had asked first for a technical memorandum from the Health Section. The Medical Director could not promise that this memorandum would be ready in 1928.

Professor Pittaluga, referring to the contemplated competition, proposed that the decisions of the jury should be communicated directly to the Institute and not to the Committee, so that the latter should not be in any way implicated in the question of any particular apparatus.

*Individual Missions and Scholarships.*

Dr. Tsurumi again thanked the members of the Committee for having rendered these missions possible. He particularly thanked the Medical Director for having, when he went to Japan two years ago, organised exchanges of professors and experts, so as to establish a close contact between Japan and various other countries. These interchanges had been very fruitful, as much from the point of view of special research as from the point of view of the mutual understanding between oriental and occidental nations. He was particularly glad to hear of Professor Saiki's success in his mission for the first interchange of professors in Japan and to know that the experiments carried out by his compatriot on cancer had been noted by Dr. Haagen and the Gesundheitsamt of Berlin.

## Chapter II. Standardisation of Biological and Serological Products.

The President stated that there would be a meeting of the Permanent Standards Commission in April 1928, as well as of the Anti-Diphtheric Serum Sub-Committee. He hoped that they would complete the study of the question of anti-tetanus and anti-diphtheric unification. Perhaps also a group would be called together to deal with the question of biological products. Attention was being called to the fact that the different units adopted by the technicians were not in general use — for example, in the case of insulin — and it was not widely enough known that the unit thus used was that of the Health Organisation. It was suggested that a Permanent Committee should meet with a view to recommending that the various units adopted should be definitely proposed to the health authorities.

There was also the question of the possibility of another Serological Conference in Copenhagen. Requests had been received from various parts of the world for the continuation of the researches begun several years ago. The different methods of flocculation were more and more important, and it was necessary to be able to compare the existing methods as much progress had been made. Perhaps a Conference would be held in May.

The President and the Medical Director had been struck by the spread of venereal disease in South America. The double question of the sterilisation of patients and the duration of the results obtained should be studied. The younger generation of medical men seemed to be sufficiently well versed in the most modern methods, but a part of the medical corps was not sufficiently well acquainted with them. It was proposed to convene a small group of experts on this subject. This meeting would take place in Europe.

Dr. Carrière recalled the fact that, in 1925 in Brussels, the Conference for the unification of the formula of heroic medicines had dealt with the creation of an International Secretariat of Pharmacopæia, and decided to recommend that the organisation of this Secretariat should be entrusted to the League of Nations, the Health Committee of which had already had to deal with questions pertaining to work which was to be entrusted to the new Secretariat. In the interval, the Belgian Pharmacopæia Commission would play the part of an international secretariat. The Belgian Government was to take the necessary steps *vis-à-vis* the League of Nations. Had these steps been taken ?

Dr. Rajchman thought that the question was still being considered in Brussels, and that it had not yet been submitted to the League.

M. Velghe would obtain information on this subject as soon as he returned to Belgium, and would communicate it to Dr. Carrière. With regard to the effect to be given to the proposals of the Permanent Standards Commission. M. Velghe proposed that the Medical Director should ascertain from each Government in what measure these proposals had been accepted and put into practice, and communicate their answers at a later session. The members of the Committee might then exchange their views on the necessary propaganda to prevent such important work from being shelved.

He had no objection to a meeting of experts to study the methods of treatment for venereal disease, but doctors attached to old methods could not be educated in this way. In Belgium, the patients, rich or poor, were treated by specialists and the results obtained were permanent. As in Germany, recent cases of syphilis were exceptional. It would appear that the problem had been solved in countries where treatment was within the reach of those who required it.

The PRESIDENT said that, according to some people, the decrease in syphilis which had been observed since the war had ceased and there was rather a slight increase in certain countries.

Dr. RAJCHMAN, referring to the effect to be given to the recommendations of the Biological Conference, gathered that, according to the President, the Permanent Standards Commission should first of all receive a report on the biological units which had been introduced. The question would then come before the Committee.

With regard to syphilis, it would be of interest to know the results obtained since the war in various countries. It was to be hoped that the experts could suggest lines of study for the future.

Dr. TSURUMI asked the President what was the position in Denmark with regard to the standardisation of tuberculine.

The PRESIDENT replied that the matter was still being studied and would be examined in April. The Permanent Standards Commission would meet at Frankfort.

Sir George BUCHANAN thought that, in reality, there was only a slowing-down in the decrease of syphilis. Perhaps the popular support of clinics for the treatment of venereal disease, which was so emphatic after the war, had now lessened. From this point of view, the work of unofficial organisations, like the British Social Hygiene Council, deserved special encouragement.

CHAPTER IV. CONFERENCE OF HEALTH EXPERTS ON INFANT WELFARE.

Sir George BUCHANAN observed that the report of the Vienna Conference (Annex 144 *c*) showed that the investigation was progressing satisfactorily and he referred merely to some of the final recommendations of the Conference. The investigation on the causes of still-birth, if undertaken by several people and by different methods, would give uncertain and even fallacious results. It seemed to be a case for an intensive sampling enquiry in each country, directed by one person, or group of persons, examining according to the same method a certain group of the population during a certain period.

He noted that the proposed monographs on immunisation against diphtheria, scarlet fever, measles and whooping-cough, were destined primarily for the use of members of the Conference. If they were to be published as documents for which the Health Committee was responsible, it should be remembered that the matter not only concerned child welfare but involved considerations of epidemiology in general, on which the Health Committee itself should have an opportunity of pronouncing. The questionnaire as to poliomyelitis given as a model seemed to contain rather obvious questions which he imagined were already familiar to most sanitary authorities.

Dr. RAJCHMAN replied, with regard to still-births, that there was no question of a general investigation. As there was a "living" investigation in twenty-three European districts, it was obvious that the investigators would study the question of still-births and that they had agreed amongst themselves on the proper diagnosis.

The experts had already suggested, fifteen months ago, the preparation of monographs, on the experience of various countries regarding prophylaxis and specific therapeutics of scarlet fever, measles, diphtheria and whooping-cough.

The Committee had decided that it was necessary, in the first place, to obtain memoranda on the results obtained in various countries having had special experience of this matter. This work had been begun, but the monographs received had not yet been published. In the meantime, in Vienna the experts had expressed the desire themselves to study the documents which they would receive from the Health Section and also, if necessary, to carry out enquiries in two or three countries particularly familiar with the problem. The report would then be presented to the Conference, but it would only be published after the Committee had expressed its opinion.

The Smallpox and Vaccination Commission had been reconstituted and Resolution VI would be sent to that Committee.

Dr. RAJCHMAN noted particularly resolution III regarding the results of the enquiries on infant mortality. He thought that the Committee would approve of these proposals and that the Health Section would take the necessary steps.

The PRESIDENT, referring to the chapter of the report on the plans for the preparation of the final report (paragraph A) said that the difficulties pointed out in this paragraph did not exist in Denmark. The information asked for by the Conference might be obtained in certain rural districts in the country.

*The discussion was adjourned to the next meeting.*

**329. Congratulations to Professor Nocht.**

The PRESIDENT, in the name of his colleagues, congratulated Professor Nocht on his seventieth birthday. Professor Nocht had found only friends in the Health Committee and everyone had admired him for the energy and the alertness which he had displayed throughout

the tours over which he had presided. The Committee was sure that Professor Nocht would long continue to give it his collaboration.

Professor NOCHT was deeply touched by the feelings expressed by the Committee. After the bad years which had just been traversed, he had become somewhat discouraged. The appeal which the Committee had made to him and the kind reception which had been given him by his colleagues had restored his confidence and interest in the work.

## SIXTH MEETING

*Held on Thursday, November 3rd, 1927, at 10 a.m.*

*President:* Dr. Th. MADSEN.

### 330. Malaria : Offer of Research Facilities by the Government of the Kingdom of the Serbs, Croats and Slovenes.

Dr. RAJCHMAN informed the Committee that, according to a communication he had received from Dr. Stampar, emanating from the Public Health Ministry of the Kingdom of the Serbs, Croats and Slovenes, the Government of that country placed at the disposal of the Malaria Commission some laboratories in each of their anti-malaria institutions, as well as an endowment for research work and the travelling expenses incurred within the country for purposes of research. Lastly, the Government of the Kingdom of the Serbs, Croats and Slovenes would provide accommodation for the members of the Malaria Commission, and the experts which that Commission should see fit to send to the spot.

Dr. LUTRARIO thanked Dr. Stampar in the name of the Malaria Commission.

The PRESIDENT said that the whole Health Committee expressed its gratitude to Dr. Stampar and his Government.

### 331. Education in Public Health : Adoption of a Resolution.

The proposed resolution concerning the reconstitution of the Commission on Public Health Education and the means of giving effect to the wishes formulated by the Conferences at Budapest and Zagreb was read.

Sir George BUCHANAN suggested that any resolution re-establishing the Commission on Public Health Education should state its composition and terms of reference. Its title seemed to give it a very wide range of activity. If the work of the Commission could not be defined at the moment in the resolution, the Commission should be instructed to submit to the Committee, at the next Session, the programme of work which it proposed to follow.

M. VELGHE had been in favour from the beginning of Professor Léon Bernard's idea that the activities of this Commission should not be limited to the teaching of hygiene to doctors. It was necessary that all professors of the medical schools should be able to contribute towards this teaching. If the Committee were agreed on this point, it was superfluous and perhaps dangerous to amplify the title of the Commission by the words " and of medicine ". Professors of medicine might wonder if the Health Committee had not the intention of dealing with the teaching of all branches of medicine. Besides, the teaching of hygiene should not be limited to the faculties of medicine. Hygiene was taught as well in schools of pharmacy and sanitary engineering, etc. If Professor Léon Bernard saw that all the members of the Committee were agreed that the programme of the new Commission was extensive, perhaps he would not press the point that its title should be amplified as was stated in the resolution.

Professor OTTOLENGHI supported M. Velghe's proposal. It was sufficient to recall the exact programme of this Commission to be certain that there was no need for a change of title. It was a question of the teaching of hygiene not only in the Faculty of Medicine and in post-graduate institutions in general, but also in every school, in which questions of sanitation should be considered. The question of propaganda in different classes of the population was also one which took an important place. From this it would be seen that all the problems relating to the teaching of hygiene, in its most general sense, had been considered.

Professor Léon BERNARD saw no objection to the adoption, for the sake of form, of a special resolution reconstituting the Commission on Public Health Education. He proposed that Professor Pittaluga's name be added to those of the former members of the Commission. The question of the composition of the Commission should also be easily settled. As regards its title, he had asked for the addition of the words " and of Medicine ", as a result of Dr. Stampar's intervention, which had demonstrated the necessary connection between the teaching of hygiene and the teaching of medicine. The new title might be amplified as follows : " Commission for the Teaching of Hygiene and of Preventive Medicine ".

M. VELGHE approved of this amendment.

Professor OTTOLENGHI thought that it was impossible to keep to the old title. The term "Hygiene" was the most general and the most exact. By adding the words "Preventive Medicine", its efficacy was diminished, or confusion was caused by giving the impression that preventive medicine, in the sense accepted by the Committee, was distinct from hygiene. In certain countries, when preventive medicine was spoken of, it was not only hygiene which was meant, but something to do with quite different persons from sanitary experts proper. Nevertheless, if the Committee considered, after hearing Professor Léon Bernard, he would not press his point that it was preferable to add the words "Preventive Medicine".

Sir George BUCHANAN thought that, in the English text of the resolution, the word "training" should be replaced by the word "education". The modification suggested by Professor Léon Bernard appeared to him to put a necessary limitation on the programme of the future Commission. He would like to have further information on the nomination of its members.

Professor Léon BERNARD repeated that there would be no difficulty in coming to an agreement on this point, once the principle of the reconstitution of the Commission was settled. With regard to the programme of the Commission, he agreed that it should be submitted to the Committee at the next session, in accordance with Sir George Buchanan's suggestion.

Dr. RAJCHMAN asked if Sir George Buchanan's proposal to the effect that the Commission should submit to the Health Committee a draft programme of work applied only to the Commission on Education in Public Health, or also, as seemed logical, to all Commissions.

Dr. TSURUMI noted that the question of the reconstitution of the Commission on Public Health Education had not been discussed by the Committee before the present session. He had no objection to make in this connection, provided that the Committee would consider favourably the question of the reconstitution of the other Commission. This was a proposal which he had intended to make at the next session.

The PRESIDENT thought that the Committee was agreed in approving the Medical Director's idea that each Commission should submit its plan of work to the Committee.

Professor PITTALUGA thought that this plan might be submitted to the bureau.

M. VELGHE thought that it was advisable to ask each Commission to present its programme at each session. As soon as a Commission began its activities, it should submit a plan, not to the bureau, but to the Health Committee, which was responsible for all the work which was undertaken.

Dr. RAJCHMAN recalled the fact that this question had been settled in Article 10 of the Internal Regulations, which he read. He also recalled the composition of the old Commission on Education in Public Health.

Professor Léon BERNARD insisted that Professor Pittaluga should be a member of the new Commission.

Sir George BUCHANAN thought it was indispensable that the Committee should know on what lines the work of any Commission was planned. This could be done in two different ways : (1) In the case of Commissions for the study of limited and clearly defined objects, the lines of work were practically defined by the terms of reference ; (2) When the title of a Commission, like that of Public Health Education, gave it a wide field of action, that Commission should begin by presenting, at the following session of the Health Committee, a statement of the lines on which it intended to pursue its work.

Professor Léon BERNARD agreed to prepare for the next session a preliminary proposal regarding the programme of the Commission of which he was Chairman, but he protested against discrimination between Commissions regarding this point.

M. VELGHE was opposed to the distinction which Sir George Buchanan wished to make between the Commissions. The Health Committee, being responsible for everything which was done by its Commissions, should know their programmes and see that they followed the lines which had been established.

Sir George BUCHANAN accepted the remarks made by Professor Léon Bernard and M. Velghe.

Dr. CHODZKO proposed that Professor Weisswardt, Director of the Academy of Hygiene in Dresden, be included on the Commission as an expert.

Dr. RAJCHMAN considered it preferable that the nomination of the experts should first be discussed in the Commission itself.

The PRESIDENT proposed that Dr. Hamel should also be a member of the Commission.

*This proposal was adopted.*

*The proposed resolution,* amended along the lines indicated by Professor Léon Bernard, *was adopted* (see Annex 153).

**332. Examination of the Report of the Medical Director on the Work accomplished since the last Session of the Committee** (continuation).

MEETING OF THE COMMISSION OF EXPERT STATISTICIANS.

Sir George BUCHANAN considered that this was one of the most important chapters in the report, as it dealt with a very responsible undertaking by the Health Committee. The present time was perhaps not opportune to discuss it in detail, but the question was becoming rather urgent, as the year for the decennial revision of the nomenclature of causes of death was approaching. The replies of some Governments to the request for their co-operation in preparing the new nomenclature on the basis of the Expert Statisticians' report, would be found in the printed report. To this some new replies, not yet printed, had to be added, including the reply from the United Kingdom, which had been distributed. The Committee would note that the administrations of England, Scotland and Ireland were in agreement on the adoption of a nomenclature based on an approximate number of 90 rubrics. This agreement had been rather more difficult to obtain than might have been supposed. It had been necessary for the official services concerned first to consider the probable effect of the changes very carefully, so as not to break the continuity of their statistics unnecessarily, and sometimes to sacrifice, in the general interest, practices which had advantages in one or other part of the United Kingdom.

The view had been expressed that bringing the present 205 rubrics down to 90 was a retrograde step, and that a list of 90 rubrics should only be accepted if the 205 were also retained. The position now taken for the United Kingdom was that a primary basis of 90 rubrics was admissible, but that those countries which proposed to expand their nomenclature and have a larger number of headings, as heretofore, should work together during the preparation of the nomenclature, so as to agree between themselves on the sub-rubrics which they would use, in addition to the basic 90. Several countries, of which Great Britain was one, had already made some progress in preparing for a revision of the nomenclature on the basis of these 90 rubrics, but it was not certain that all countries were doing so. No progress could be made until it was known whether the basis of approximately 90 rubrics was accepted by those who were taking part in the preparation of this revision. It might be advisable again to communicate with the various Governments, stating that several countries had definitely declared their intention to work on the 90-rubric basis, and to invite them to say, within a certain time, what detailed proposals they had to make for a nomenclature established on this basis.

He drew the Committee's attention to the observations in the British note regarding the registration of deaths due to several causes, and to the practical advantage of keeping the revision limited to causes of death. The classification of morbidity should be left for future and independent study.

Dr. JITTA agreed as to the necessity for clearing up the question of the causes of death, but he could not agree with Sir George Buchanan entirely. The question was difficult and complex, and the Committee would examine it again when it had received the final reports. He wished only to emphasise the necessity of an agreement between the Health Committee and the International Institute of Statistics. It was a curious fact that the same questions were being dealt with by the two organisations with the help of the same people. Without wishing to consider if there were any question of feeling in the matter on one side or the other, and without making any proposal, Dr. Jitta asked the Committee to do everything in its power to come to an agreement with the International Institute, so as to avoid overlapping. He believed that the French Government would convene in 1930 the proposed Conference. The official delegates had already been designated, and it was urgent to come to some agreement.

Professor Léon BERNARD entirely agreed with Dr. Jitta's remarks. He had already proposed, with his Dutch colleague, a formula of agreement which had been supported by M. Velghe but had been rejected by the Health Committee. The solution adopted had led to the regrettable situation to which Dr. Jitta had drawn attention. Speaking in the name of the French Government, Professor Léon Bernard regretted very much what had happened. The French Government had, for a long time, been charged to convene the Conference dealing with the question of the nomenclature of the causes of death, and it had long been agreed that a new Conference convened by this Government should take place for the revision of this nomenclature. The French Government had no reason for abandoning the mission with which it had been entrusted and which it was at present carrying out. The International Institute of Statistics, entrusted by the Government with the preliminary study of the question, was to meet at Cairo, after which the proposed Conference would be convened by the French Government.

Dr. CARRIÈRE said that the Health Section had probably recently received the Swiss reply. With regard to the nomenclature of the causes of death, Switzerland would be able to adopt the reduced nomenclature so as to bring its own nomenclature into agreement with other countries for statistical purposes. There would be certain difficulties, but they would not be so great as those to which Sir George Buchanan had referred in Great Britain. Nevertheless, beside the reduced nomenclature, it was understood that, for its own purposes, Switzerland would retain the wider nomenclature.

With regard to the statistics of the causes of morbidity, considerable documentation had already been sent to the Health Section. The Swiss statistical service, as well as Dr. Carrière's own service, were in agreement regarding the investigations requested, on condition that there should be no overlapping.

Sir George BUCHANAN was glad to have drawn attention to the importance of this chapter of the report. The question was as follows :

Several Governments, of which Great Britain was one, had acceded to the formal request of the League of Nations that the new nomenclature should be studied by the administrations concerned on the basis of the 90 rubrics recommended by the Expert Statisticians, and intended to send its detailed observations to the League in due course. Would it not be possible now to invite all Governments to accept this principle and to send in their detailed observations, before the end of next year at latest, for consolidation by the same body of experts ? It would then be possible to co-ordinate these various observations in agreement with the International Institute of Statistics. It would be unfortunate if the International Institute were to be dealing with the question, meanwhile, on some other basis than the 90 rubrics.

The question now was not to know if the Conference was to be convened by the French Government or by the League of Nations ; the point was to fix the plan of work.

Professor Léon BERNARD observed that the nomenclatures adopted on both sides were the same. On the other hand, he did not think that it was possible to say that it was of no importance to know if the Conference would be convened by the French Government or not.

Sir George BUCHANAN did not wish Professor Léon Bernard to misunderstand his last observation. What he had meant was that a formal decennial Conference to revise the nomenclature was agreed by all to be essential. The question which should occupy the Committee was not whether that Conference would be convened by France or the League of Nations, but to adopt an agreed plan of preparatory work and to avoid overlapping.

Dr. RAJCHMAN recalled the fact that, at its eighth session, the Committee had unanimously adopted the resolution on the question of a revision of the International List of the Causes of Death. This resolution was submitted to the Council and adopted by it, which indicated that all the Governments represented on the Council were in agreement on this point. This was the actual position of the question, and the Health Committee could merely conform to this resolution. The only question was how to bring about a meeting between the Commission of Experts, the Health Committee, and the delegates from the Institute. This point was discussed between the Bureau, the Director of the International Institute, and the Medical Director. The Institute had proposed a Mixed Committee, a suggestion which was not accepted by the Health Committee. The latter had suggested that a preliminary study should be made on both sides and that the results of this double work should then be compared. It appeared, from a communication from the French Government, which was still unofficial, that a new opportunity of collaboration might arise when the time came to determine the documents which were to serve as a basis for the discussions of the Conference.

It therefore appeared that the plans of the French Government and the Health Committee were identical. The Committee had, from the beginning, wished that the Committee of Experts should carry on its studies and collect observations. When the Institute had completed the studies which it had undertaken, a comparison of the two documents would be necessary so that the Conference should have a uniform final documentation, or that there should at least be agreement on both sides. It often happened in international questions that work was carried out in two different places by the same persons. The Medical Director thought that it would be possible to arrive at an amicable collaboration on the basis of the proposal made by the French Government.

M. VELGHE stated that, when the examination of the nomenclature of the causes of death was undertaken, there had been no question of depriving the French Government of an initiative it had every right to exercise. It was very regrettable that the overlapping pointed out by Dr. Jitta and Professor Léon Bernard had occurred. It was probable that unanimous agreement would finally be reached, but it was impossible to say that the plan of work adopted had been good. Every effort should be made to avoid overlapping between any two international organisations. In acting in this manner, they would be working for the good of the League of Nations. The goodwill manifested on both sides during the present discussion should be remembered.

Professor Léon BERNARD entirely agreed with M. Velghe. They should not go back over the past, but should profit by its lessons in order to do better in the future. The French Government had, most disinterestedly, proposed a common ground of agreement for future collaboration, and Professor Léon Bernard was glad to see that the Medical Director was of the same opinion on this point. It was to be hoped that the Health Committee would consider the wish expressed by M. Velghe and that there would be no more overlapping.

Dr. JITTA was glad that the Medical Director had kept the Health Committee posted with regard to the intentions of the French Government. It would seem that the time had come to organise a meeting between the bureau, the Medical Director and the Director of the International Institute in order to clear up the question. It would also be advisable to send a representative of the Health Committee to the Cairo meeting, so as to reply to the goodwill of the French Government by giving a proof of its own goodwill.

Sir George BUCHANAN was also of the opinion that all overlapping should be avoided. The International Institute should participate fully in the work, but it was necessary to know exactly what the position was. The British services collaborating in this work should know exactly what was expected of them. The British Government had received from the Secretary-General a letter asking for action, through the League, on the question of the revision of the nomenclature, it being understood that the Institute would make its suggestions to the League at a later stage, and on this communication work had been started. If it were now a question

of modifying the plan, it was necessary to know along what lines it was to be modified. The proposals in the letter from the French Government seemed to him to change the situation entirely. It was difficult to discuss this quite new situation just as the session was drawing to its close, but he felt that the question could not be left vague, particularly for countries which had already adopted a plan of work. If the new situation were not soon dealt with, and the difficulties adjusted, the administrations concerned ought to be notified that the whole question was again in the melting pot.

Dr. RAJCHMAN did not think that the situation was as complicated as it seemed. He thought it would be possible during the present session to adopt a resolution which would put an end to all misunderstanding. The resolution adopted at the eighth session had been the result of a compromise and, as was the case with all compromises, its application was bound to give rise to difficulties. The Health Committee proposed a meeting between its delegates and the Committee of Experts, or of the Committee itself and the delegates of the Institute, with a view to preparing documentation for the final Conference. This proposal was rejected by the Institute, which wished to form a mixed Committee. As a matter of fact, there was very little to choose between the two procedures.

Professor Léon BERNARD remarked that it was a question of date. The mixed Committee would have met before the work of the two expert Committees would be ready.

Dr. RAJCHMAN added that, in any case, it was now possible to arrive at a complete agreement. There had been consultations on both sides, and that of the Institute was finished ; it was necessary to wait until that of the Health Committee was finished.

On the other hand, it did not seem necessary to send a delegation to Cairo, as the work to be done there was of such a nature that it was more a question for experts than for a congress.

Professor Léon BERNARD agreed with M. Velghe that it was clear that, on both sides, there was the intention of seizing a new occasion to collaborate. On the other hand, it did not seem possible to adopt a resolution on the basis of a communication which was not yet official. Moreover, it was not necessary to have a resolution in order to remember that a new opportunity of collaborating would occur. The question of a resolution could be considered at the April session.

M. VELGHE also thought that it would be difficult and inopportune to adopt a resolution now. The question which should concern the Committee was the necessity for dispelling all misunderstanding on the part of the British Ministry of Health. There was no question of asking it to give its agreement to a list which would only be drawn up by the 1930 Conference. The British Government was merely asked to examine the question of this list.

Sir George BUCHANAN said there was no British misunderstanding on that ground. But it was important to know for whom the British authorities were preparing their revision, and whether it was to be studied on the basis of the report of the League's Commission of Expert Statisticians, or not.

He agreed that there seemed no prospect of adopting a useful resolution at the present session. For the moment, he assumed that those countries which had replied along the same lines as Great Britain would continue on those lines.

Dr. JITTA again would not insist on his proposal to send a delegation to Cairo. On the other hand, it would be advisable to have a conversation or correspondence with the Director of the International Institute so as to clear up all misunderstanding. If this were not possible, the Committee could ask him or Professor Léon Bernard, or both, to undertake to inform the Director of the International Institute of the Committee's decision to collaborate with it.

Referring to a remark by Professor Léon Bernard, Dr. RAJCHMAN recalled the fact that official communication with the Director of the Institute was within the competence of the Health Section.

Sir George BUCHANAN suggested that the medical secretariat should be represented at the Cairo meeting.

Dr. RAJCHMAN said that it was not usual for the Committee to discuss the possibility of sending a representative to a Conference unless it had been invited to do so.

Professor Léon BERNARD added that the position of a representative of the Committee at this meeting would be difficult.

Sir George BUCHANAN said that he had suggested a representative of the Secretariat.

The PRESIDENT said that the necessary indications would be included in the Minutes.

*The discussion was adjourned to the following meeting.*

**333. Work of the Cancer Commission from 1923 to 1927. Report by Sir George Buchanan.**

Sir George BUCHANAN said that this report (Annex 148) was presente das the unanimous report of the Commission. A few additions would be made to the printed text to take account of certain observations by the Italian experts. An appendix would give the names of the Sub-Commission of Experts, and of the Italian and other experts who, independently of that Sub-Commission, had assisted the Commission in its work.

The report was a summary of work extending over four years, and was made at the request of the Health Committee. At the last session, it had been pointed out that the nature of the work of the Cancer Commission was not sufficiently realised and that it would be useful for its copious documentation to be summarised. The Cancer Commission had accepted this suggestion the more readily as it considered that the time had come when many countries were giving greater attention to cancer, and felt the need of working together.

Up to the present, the idea that the State should take its share in combating cancer and reducing cancer mortality was only partially accepted. Many countries still considered the position with regard to cancer in the same way as the position with regard to syphilis was considered twenty years ago, when that disease was not regarded as a matter for the public health authorities but, at most, one for police regulations. But in nearly all countries the question of State action was being forced to the front. While other diseases declined, cancer mortality increased, and public health authorities were obliged to take this into account and say if public action could reduce it. The increase of cancer mortality was doubtless partly due to greater longevity, but it was also partly real. The question had political importance because it was connected with insurance and because it was causing great public uneasiness.

If, as a practical matter, life could be saved by action based on present knowledge, it was wrong to delay taking it because the specific causes of cancer were not sufficiently known or because research had so far presented no specific remedy for cancer. Typhoid fever had been put effectively under control before the discovery of the typhoid bacillus, or of anti-typhoid vaccine, and so with many other diseases.

On present knowledge, the State could organise or assist in establishing, a system of education, warning people how to avoid the irritations leading to cancer, emphasising the great importance of early diagnosis, and the necessity of surgical or radiological treatment at the very early stages of the disease. It could do more, as it could see that facilities for diagnosis and treatment were provided. There were also the questions of after-care of incurable cases, and the avoidance of industrial cancer.

Propaganda was obviously needed with a view to this education of the public, but a propaganda of half-truths would be worse than useless here. People must not be scared into perpetual fear of cancer ; the propaganda should be based on an exact study of the existing facts. This often meant acquiring new knowledge by exact investigations which had not previously been made. To take an illustration from the report, what was the mean duration of the life of a woman suffering from cancer of the breast in the absence of operation ? This must be ascertained in order to guide the people who were educating the public, and must be contrasted with the results of surgical treatment at the early stage. The facts had not been tested until about two years ago, when the enquiries made in connection with the work of this Commission were undertaken. What were the chances of survival after treatment for uterine cancer, at different stages, by surgical operation or by radium respectively ? Here, again, the Commission had had to undertake special and often tedious work to provide the answer.

Then it was important to know the meaning of the increase in cancer deaths. Was the cancer mortality rate really increasing, when each site of the disease was taken into consideration ? What allowance should be made for errors in certification, especially when the death rate in one country was being compared with that in another ? For example, if a patient died of secondary cancer of the liver five years after an operation for cancer of the breast or the lip, which had not recurred, would the death, in practice, find its way into the statistics as cancer of the breast or lip, or as cancer of the liver ? And would it be the same in two countries the mortalities of which were being compared ?

There was also the question of predisposing causes or pre-cancerous conditions. The Commission, in connection with cancer of the breast and uterus, had worked out the importance of mastitis, of lactation, etc., and the effect of fertility. This work represented intensive study in many countries and along many different lines. He cited these instances to indicate that, in this modest summary, relating often to minutiæ, but necessary minutiæ, the facts stated in it were well ascertained, and practically settled, by the participation of many countries in the work and by a system of international comparison. The Commission could fairly claim that these facts would be found of value in the work of prevention or amelioration of this disease, and would clear the way for further progress in cancer control.

He wished to draw special attention to the Commission's resolution expressing its gratitude to the experts who had worked for it. Incidentally, the Health Committee and the League could congratulate themselves on having obtained such devoted work in return for a relatively small expenditure. The Committee would gladly take note of paragraph 3, subdivision (*b*), of document CH/Cancer/58, in which the Sub-Commission of Experts stated that, though it considered that the branch of work on which it had been engaged was practically completed, it would be willing to continue work in the future, collectively or individually, on other cancer problems on which the Committee might desire assistance.

With regard to future work, the continuation of similar enquiries based primarily on statistical analyses of data obtained from different countries was perhaps no longer advisable, but the Cancer Commission thought that it was of first importance to consider other lines of

investigation for which the international co-operation available through the Health Organisation might prove invaluable. The Commission made no recommendation for a new programme at this session as it had not yet had time to collect and review the different suggestions. They included for example :

(1) Certain forms of occupational cancer, on which the experience of the same trades in different countries was by no means the same ;

(2) The possibility of making an international investigation to clear up certain important questions regarding the treatment of cancer by radium ;

(3) The desirability, as suggested by Professor Léon Bernard, of now bringing together " cancerologists " with a view to obtaining their opinions on the matters in connection with their researches on which joint action was desirable, and could best be provided by the Health Organisation ;

(4) A further enquiry into the localised distribution of cancer in different regions of the same country.

The Commission desired, however, to receive and consider other suggestions. He hoped that, if the report were accepted and published, it could be distributed to public health officials and also to the various institutes and experts and the different countries, with the object of obtaining new proposals. Other suggestions, he hoped, would be received from the Permanent Committee of the Office international as well as from the Health Committee itself. The Commission would then meet again and go through all the proposals, classifying them according as they appeared desirable or undesirable, and more or less urgent. By the next session, it should thus be possible to present a reasoned exposé and recommendations. For this purpose, it would be desirable that different experts should be consulted, but no new work would be put in hand meanwhile.

The PRESIDENT, in the name of the Health Committee, thanked the Cancer Commission, the experts and, particularly, the Chairman of the Commission for the considerable work they had done and the excellent report which they had presented.

Professor Léon BERNARD, as member of the Cancer Commission, associated himself with the tribute paid to Sir George Buchanan and the experts.

The Commission had, up to the present, been doing work on statistical lines, and apparently the experts had obtained all that was possible from these methods. On the other hand, from the point of view of the nature, the prophylaxis and the treatment of cancer, the scope of the information collected was comparatively restricted and, among cancerologists in certain countries, attention had been drawn to the disproportion between the effort and the result. With regard to these three essential points, there was admittedly very little advance since the beginning. Since the experts considered that their work was finished in so far as the questions submitted to them were concerned, it was now necessary either to decide that the work was finished or to start again on another line. The Health Committee, however, could not now drop the question. None of its members were specially competent to deal with cancer. It was therefore necessary to call for the co-operation of cancerologists, ask them for their opinion on the most important questions to be studied, and put the work in hand.

There was manifestly a certain divergence of opinion between the various members of the Cancer Commission. Professor Léon Bernard and Dr. Jitta thought that, in order to gain time, it would be possible, without further delay, to designate well-known cancerologists in their respective countries to constitute a committee of experts. The majority of the Commission had thought it preferable that each member of the Commission should consult the competent people in his own country. The Chairman of the Commission would make a report on the result of these consultations at the April session of the Committee.

Professor Léon Bernard accepted this decision, but he asked that, in the Minutes and in the resolutions, it should be clearly stated that the Cancer Commission now intended to consult the cancerologists.

Professor PITTALUGA was of opinion that it was not enough to come to an agreement on the principle which had just been stated by Professor Léon Bernard. It would also be necessary, perhaps at the next session, to indicate clearly what should be the scope of this consultation, in conformity with the decisions taken at the beginning of the meeting on the limitations of the terms of reference of the various Commissions.

Replying to Dr. Tsurumi, the PRESIDENT said that Dr. Tsurumi's memorandum on cancer in Japan (document C.H. 652.) would be distributed.

Dr. RAJCHMAN wished to know what had been decided with regard to the Sub-Commission of statisticians of the Cancer Commission. If he had understood Sir George Buchanan aright, this Sub-Commission had ceased to exist and, if it were desired to consult the experts again, it would have to be as individuals. He gathered also that the Cancer Commission would ask in one way or another the opinion of new experts on the subjects to be studied. It would then examine the suggestions presented, so as to make definite proposals to the Committee.

*This was approved.*

Dr. LUTRARIO, in his turn, associated himself with the tribute paid to the Chairman of the Cancer Commission. He was not as pessimistic as Professor Léon Bernard with regard to the conclusions to be drawn from the work of this Commission. Important results had been obtained, not only from a statistical point of view but also from other points of view. Furthermore, Dr. Lutrario wished to make it clear that, in Italy, not only statisticians, but the most distinguished cancerologists of the country had been consulted. Therefore, the resolution adopted should not imply any lack of confidence in the experts who had helped the Commission in Italy.

Dr. JITTA drew attention to the fact that, nevertheless, research had been carried out on statistical lines.

Professor Léon BERNARD agreed that eventually the same cancerologists as those already consulted should be approached.

Sir George BUCHANAN thanked the Committee for its appreciation of the report and proposals of the Cancer Commission. The Sub-Commission of statisticians and other experts had practically terminated its task as a Sub-Commission, but he would not like to go so far as to say that it had ceased to exist on this actual date, as there remained a certain number of secondary questions on which appeal might still have to be made to it. Perhaps on this point of detail he might be allowed to examine the matter with the Medical Director.

The work done in Japan, outlined in Dr. Tsurumi's memorandum, constituted an extremely useful contribution to the studies of the Commission.

With regard to the question of "cancerologists," Sir George Buchanan was of opinion, with Dr. Lutrario, that the methods followed up to now by the Commission were not open to criticism on the ground of the absence of expert advice. The whole report was steeped in the work of experts in cancer. This report was in large measure statistical, but it was based on observations obtained with the aid of the most eminent cancer experts from the several countries which had participated in the investigation. The statisticians had to analyse and co-ordinate facts obtained from other experts. In regard to the future work, the whole Commission was agreed that suggestions should be invited from the directors of cancer research institutes and other "cancerologists". But he was surprised at a suggestion made during the debate, that the Commission itself was not competent to indicate the lines along which the work of the Health Organisation in connection with the control of cancer could best be pursued. After all, what was a "cancerologist"? Doctors and surgeons, serologists, pathologists, bio-chemists, radiologists, hospital workers, administrators, were all indispensable, in their respective spheres, to practical work for the reduction of cancer mortality and suffering from cancer. He had no pretensions himself to be a cancer expert, but he claimed that, like others on the Commission, he was a competent cancerologist in the sense that he had experience and judgment in determining the present situation and in deciding on those directions in which public authorities, national or international, could best assist in the work, and those which they had best leave alone.

Professor Léon BERNARD, replying to the remarks of Sir George Buchanan, said that a cancerologist might be defined as a man of science whose work and research dealt with the study of cancer.

M. VELGHE, after having closely examined the resolution of the Cancer Commission, was of the opinion that it could not be adopted purely and simply in its present form. A new and shorter text must be prepared, which he proposed to draft with Sir George Buchanan.

Sir George BUCHANAN quite agreed with M. Velghe on this point. The resolutions of the Cancer Commission did not profess to be a draft for adoption by the Committee.

Professor Léon BERNARD insisted that it should be quite clear, from the new text, that in future the collaboration of expert cancerologists should be called upon.

The PRESIDENT proposed, in view of the importance of the question, that M. Velghe and Sir George Buchanan should prepare a text with Professor Léon Bernard.

Sir George BUCHANAN pointed out that the Cancer Commission had unanimously adopted its resolution, and had given full weight to Professor Léon Bernard's contention. The new resolution to be drafted for the Committee would equally give weight to this contention along with other suggestions. But he could not consent to putting one member of the Commission in a privileged position in regard to the text. If there were any doubt, the whole Commission should be consulted.

Professor Léon BERNARD explained to Sir George Buchanan that it had been understood that the collaboration of cancerologists should be mentioned in the proposed resolution of the Cancer Commission. As this proposal was to be replaced by a new text to be submitted to the Committee, it was now merely a question of drafting this text in accordance with what had already been agreed.

The PRESIDENT said that the new text would be submitted to the Committee at its next meeting.

## SEVENTH MEETING

*Held on Thursday, November 3rd, 1927, at 4 p.m.*

*President :* Dr. Th. MADSEN.

### 334. Application of Article 10 of the International Opium Convention of February 19th, 1925 : Note by Dr. Carrière.

Dame Rachel Crowdy, Chief of the Opium and Social Questions Section of the Secretariat, came to the Committee table.

Dr. CARRIÈRE commented upon his report (Annex 149) and recalled the memoranda prepared by the Secretariat (documents C.H. 612 and C.H. 637) on the effect given by the Health Committee to the stipulations of Article 10 of the International Opium Convention of February 19th, 1925, and the reports of Dr. Knaffl-Lenz on the application of this article to various drugs (eucodal and dicodide on the one hand (Annex 149 *a*) and benzoyl-morphine and other esters of morphine on the other hand (Annex 149 *b*)).

Dr. Carrière submitted to the Committee a draft resolution and added that, for the present, it was merely a question of settling a matter of principle. If the Permanent Committee of the Office international d'hygiène publique should decide in the sense indicated, it would be necessary to examine — and this was a legal question — whether the terms of Article 10 of the Convention could be considered as applicable to a whole group of products, such as that represented by the esters of morphine, or whether each ester should be mentioned by name. Clearly, the first of these two methods of procedure would be the more practical, for it would do away with the necessity of drawing up a list. It would never be possible to be sure that such a list would be complete, in view of the large number of the compounds of morphine with organic acids, of which diacetyl-morphine and benzoyl-morphine were types.

Dr. KNAFFL-LENZ commented on his report on the application of Article 10 of the 1925 Convention, dealing principally with the question of benzoyl-morphine and other esters of morphine. In closing, he said that it should be considered as settled that all the derived products to which he had referred were as dangerous as the drugs to which Article 10 of the Convention applied and that all esters, without any distinction, should come under this article, for, if only those which were on the market were mentioned, the manufacturers were always at liberty to produce a great variety of esters.

The PRESIDENT thanked Dr. Knaffl-Lenz for his statement.

Professor JORGE supported the suggestions made by Dr. Carrière and Dr. Knaffl-Lenz. He had learnt a few months ago of the abuse of eucodal in Lisbon and he had proposed to the Portuguese Health Council to submit to the Government a draft decree placing eucodal and dicodide under the regime of narcotics already in force. The application of the Opium Convention of 1925 gave rise between the signatories of this Convention and the manufacturers to a sort of duel which might be compared to that between the cannon and the cuirass. The more drugs that were inscribed in the Convention the more new ones the factories would turn out. It was therefore necessary to take radical measures by adopting a formula grouping all esters, which would make it unnecessary for the Committee to have to propose every year the inclusion of new products in the Convention. There was nevertheless perhaps a legal aspect of the question.

Dr. RAJCHMAN did not think that the Health Committee need concern itself with legal considerations. Even if a question came up which was not, strictly speaking, within the scope of the Convention, the Committee could always draw the attention of the Council to the matter.

Dr. HAMEL agreed with the proposals made by the Chairman of the Opium Sub-Commission, the more so as he had been given the opportunity of assisting in the work of that Commission during the last days.

He nevertheless wished to point out that there were certain preparations of dicodide to which the provisions of Article 8 of the 1925 Opium Convention applied. Proposals relative to these preparations would be submitted to the Health Committee later.

Dr. CARRIÈRE, considering that the procedure would be rather long, proposed that the Health Committee should immediately submit the question to the Permanent Committee of the Office international, so that the latter could next week submit the question to the experts.

Dr. RAJCHMAN said that it appeared from the discussion that a report would be submitted to the Health Committee in April and that the Health Committee would be able to present its proposals to the Council at the next session.

*The draft resolution was adopted* (Annex 153).

Dame Rachel Crowdy withdrew.

### 335. Examination of the Report of the Medical Director on the Work accomplished since the Last Session of the Committee (continuation).

INTERNATIONAL RABIES CONFERENCE.

Professor OTTOLENGHI was of the opinion that, among the institutes to which might be entrusted the studies mentioned under this chapter in the Medical Director's report, the Institutes of Hygiene of Warsaw, Budapest and Zagreb might be mentioned. The Committee

was already in communication with these institutes, which were working under the conditions established by the Conference, since they were situated in districts where rabies was frequent. Outside the Schools of Hygiene there were, naturally, other institutions, particularly the Pasteur Institute and others, which might be requested to undertake research on the value of the new methods of preparing vaccine. He also wished to remind the Committee that it was in M. Fermi's Institute — and later, in other Italian institutes — that a method of vaccination, which appeared to give the most satisfactory results, had been studied for the first time and afterwards extensively developed.

Dr. RAJCHMAN remarked that the recommendations of the Conference might be placed in three groups :

(1) *Resolutions 8 and 9*, dealing with the establishment of a standard, and, if possible, with a method of standardised treatment. As regards the suggestion made by Professor Ottolenghi, the Medical Director pointed out that this was an extremely delicate task and should be entrusted to a person having a very long and worldwide experience of the question. One of the experts of the Conference, Professor Remlinger, might be asked to prepare a programme of study and to submit it to the Permanent Standards Commission.

(2) Dr. Remlinger might also be asked to prepare a preliminary plan of work, in conformity with *resolutions 5 and 6* relating to the comparative studies to be undertaken. When the Permanent Standards Commission had examined this preliminary plan, the question of collaborating with various institutes might be considered, but it would also be necessary to get in touch with overseas institutes, particularly those of British India, the Netherlands Indies and South America.

(3) *Resolution 10* (Statistics) was of particular importance. The preparation of these statistics necessitated wide experience. The Health Section would deal with it, but, if the Committee accepted the proposal which had been made, it would doubtless be necessary to decide to apply to another member of the Conference, namely, Dr. McKendrick.

Professor OTTOLENGHI approved the Medical Director's suggestion.

Professor PITTALUGA remarked that, under resolution 10, it was said that " every Pasteur Institute should send each year its statistics to the Health Organisation — statistics tabulated according to a schedule to be drawn up by the Health Organisation ". Would it be necessary to wait, before preparing this schedule, for Dr. McKendrick to prepare his study of the question?

Dr. RAJCHMAN replied in the affirmative.

### INTERNATIONAL COMMISSION ON SLEEPING-SICKNESS.

Professor PITTALUGA was of the opinion that the Committee might discuss at once the work done by the International Commission on Sleeping-Sickness, although it was not in possession of all its definite conclusions. As regards the scientific aspect and the practical application of this work, Professor Pittaluga wished first of all to pay a tribute to the work of the Commission. Nevertheless, at a first reading of these conclusions, in so far as they were already known, it was clear that they contained hardly any new elements likely to modify the present attitude towards prophylaxis and the therapeutics of sleeping-sickness. Further, what had been expected from this Commission was rather that it would bring out particular points in the great cycle of the evolution of the epidemiology of sleeping-sickness, in order that the measures already known might be made more effective. The Uganda Commission had, indeed, looked at the question from this point of view and an examination of the report had already brought out many more precise indications which would be of great service to the sanitary authorities. Professor Pittaluga therefore asked the Health Committee to express now its general approval, without going into details, which were a matter for the Expert Commission.

The Spanish Government, although it had not been able to send an expert to the Commission, had participated financially in its work and, before leaving Madrid, Professor Pittaluga had obtained the assurance of the General Director of Morocco and of Guinea that this support would, if necessary, be continued, if the Health Committee decided that the investigations in question, although completed in so far as practical work on the spot was concerned, should be submitted to the Commission of Experts for a final revision. Certain of these conclusions, indicated in the summary of the final report, were already being applied in the Spanish colony of the Gulf of Guinea, particularly with regard to the sanitary book for native workers and the measures taken to prevent migration into districts which were centres of trypanosomiasis.

With regard to procedure, Professor Pittaluga ventured to insist, with the Medical Director and his colleagues, on the following considerations.

The Commission of Experts, under the Chairmanship of Dr. Andrew Balfour, had, as was natural, worked up to now slightly outside the ordinary activities of the Health Committee, but the time would come when, after the examination by the Commission of Experts of the report on the work in Uganda, the Health Section would examine, in agreement with the Chairman of the Commission, the means of arranging a meeting of the Commission at the same time as a session of the Health Committee, or with certain members of this Committee who were particularly interested in the problem, so that the final deliberations might be submitted to the examination of the Committee or its representatives. It was, in effect, only right that the Health Committee should receive the conclusions concerning the work emanating from that organisation.

Dr. RAJCHMAN thanked Professor Pittaluga for having drawn attention to the technical value and the practical interest of the work and recommendations of the Commission and for having emphasised the fact that the question could not be considered as closed. When the Committee had decided to deal with the question of sleeping-sickness, it was evidently with a view to doing practical work, and carrying out this work as far as possible to the end, within the scope of the Committee.

Dr. Rajchman recalled that the Health Committee had begun by appointing a Commission of Experts to ascertain the present state of knowledge of the question. Two reports had been presented. The Committee had then directed attention to the importance of conducting enquiries on the spot. As the problem concerned certain Governments, it had been suggested that an International Conference should be convened, which Conference approved the programme of research on the spot submitted by the experts. The Committee now had before it the report on the investigations in Africa. The Commission of Experts must obviously examine the report in order to ascertain the way in which the researches had been carried out. The report, accompanied by the experts' observations, would then be forwarded to the Governments interested in the work. Finally, the same Governments might be invited, by a resolution of the Council, if such were the decision reached on the basis of a recommendation of the Committee, to convene their delegates again for a second International Conference to discuss the report of the Commission of Enquiry and the programme of the Commission of Experts. It would then make fresh recommendations, which would come before the Council. This procedure did not concord at all points with the normal procedure, but the enquiry itself had been undertaken under somewhat peculiar circumstances. The reference of the report to an International Conference was especially necessary because the Commission of Experts was able to recommend further investigations on the spot, and this would require further consultation on technical points with the Governments which were specially interested in the work of the Commission.

The procedure suggested by Professor Pittaluga to convene the Commission of Experts presided over by Dr. Andrew Balfour conjointly with the Health Committee would be somewhat slow because the Second International Conference was to meet in the course of the winter and would be attended by the members and Chairman of the Commission of Enquiry.

The Health Committee should inform the Council and the Governments concerned that it was still at their disposal for the putting into application of any practical recommendations. As regards the more direct participation by the members of the Health Committee who were experts in sleeping-sickness, this could be effected simply by associating one or another of the members of the Committee in the work of the Commission of Experts.

Professor PITTALUGA agreed with Dr. Rajchman on the question of the procedure to be adopted. There were certain slight differences of opinion as to the participation of the Health Committee in the work of the Commission of Experts, but he hoped that his colleagues would authorise him to draw up, in consultation with the Drafting Committee and the Medical Director, a draft resolution which would be submitted to the Committee on the following day.

Sir George BUCHANAN approved Professor Pittaluga's suggestion, in so far as it implied that those who had been originally concerned with the organisation of the Commission, including members of the Health Committee, should have a special opportunity of considering the results of the Commission's work.

Dr. RAYNAUD agreed with what Professor Pittaluga and Dr. Rajchman had said. He hoped that reference would be made to the fact that the entire enquiry had been initiated by the Health Committee. One member of the Health Committee had attended every meeting of the Commission of Experts. He hoped that a larger number of representatives of the Health Committee would be appointed to attend the proposed International Conference, in which the members of the Committee who were particularly interested in the question would be able to make suggestions with regard to the possibilities of practical application.

Dr. RAJCHMAN urged the importance of this proposal.

Dr. RAYNAUD added that the Secretariat would make the necessary arrangements.

Sir George BUCHANAN said that, to the extent that the question was influenced by the proposed Conference being held in London, he had no hesitation in saying that members of the Health Committee would be most welcome there.

*The Medical Director's report was adopted as a whole.*

### 336. Work of the Far East Commission : Report by Dr. Jitta.

Dr. Park, of the Health Department of the Australian Commonwealth, came to the table of the Committee.

(*a*) PROPOSED ENQUIRY INTO HEALTH CONDITIONS IN THE PACIFIC.

Dr. JITTA submitted his report (Annex 150) and a draft resolution on the proposed enquiry into health conditions in the Pacific.

Dr. PARK read the following statement on the investigations made in the Pacific island groups :

" The desirability of research into the conditions causing morbidity in the different groups of islands situated in the Pacific impressed itself on the delegates present at the Conference in Melbourne in December last. Certain diseases were seen to be prevalent in some groups

but no in others and, though some independent investigations have been made, shortage of funds and insufficiency of staff, at any rate in the two countries over which Australian influence extends, have prevented organised efforts from being made. No correlation of the work that has been done in the various groups has, up to the present, been possible, but the appointment of a small commission as proposed would render this immediately practicable.

" It may be of assistance briefly to indicate certain directions in which such a Commission, if appointed, could with advantage devote its energies.

" *Malaria.*

" In Papua, there is always a background of malaria which causes an enormous morbidity among the native inhabitants.

" In New Guinea also, malaria is so prevalent as to be a constant feature rather than a local disease.

" On the other hand, malaria does not exist in Fiji and the possibility of its introduction is a matter of concern.

" Again, if we turn to the French possessions, we find that malaria is unknown in New Caledonia, but very common in the New Hebrides. Here, then, are matters for definite enquiry. We should know what is being done in the malarial islands. Are there any other measures that could be applied ? On this point, perhaps, a survey of the possibilities might lead to helpful suggestions being forthcoming from the Malaria Commission.

" Again, we ask 'What are the differences which account for the absence of malaria in the groups mentioned ?'

" *Leprosy.*

" Then there is the question of leprosy. We had in Nauru the experience of an introduced case of leprosy producing approximately 150 cases in an indigenous population of 1,100 persons.

" Enquiry into a pronouncement upon the question of isolation of household contacts would be welcome and valuable.

" Again, there is the question of transference of leprosy throughout some of the island groups.

" On occasion, in New Guinea a typical case of leprosy has been discovered in a remote village apparently arising *de novo.*

" The subject merits enquiry. How do these odd cases arise ? Why are they so few in number ?

" *Dysentery.*

" If we look at the incidence of dysentery, we find that it is generally prevalent and of bacillary type. So far as is known, amoebic dysentery does not occur, but this is a matter upon which further enquiry might throw light.

" *Measles.*

" The steps taken to prevent the introduction of measles into the island groups have been influenced by the classical instance of last century, when measles introduced into Fiji caused great mortality. Since then measles has been guaranteed against certain groups. The time has come, however, to correlate the experience of the various groups in order to decide whether such a policy is necessary or desirable.

" *Yaws and Syphilis.*

" Yaws is prevalent throughout the island groups and syphilis thought to be correspondingly rare. It has been generally accepted that the two diseases do not exist side by side and, while this may be so, the necessity for definite enquiry and information on the point is clear. It might be that the measures which are being taken to eradicate yaws will lead to syphilis taking its place.

" Such a possibility is of importance, *e.g.,* in Fiji, where the Fijian suffers from yaws, but the indentured Indian from syphilis. Enquiry into this matter could also include information as to the relative value of the methods of treatment adopted in the various groups, some of which use bismuth, while others use novarsenobenzol (914).

" In addition to the matters mentioned, there exists one very important subject for enquiry, viz., the question of diet. There is reason to ask, 'Are the native populations of the various groups, living under their own conditions, receiving a diet sufficient in essential elements ?' This question could be elaborated at length, but it will suffice to mention two incidental matters which were referred to during the Conference.

" One of these was the fact that, in New Guinea, recruits 'from' areas which had little contact with non-indigenous races, when tested by the Von Pirquet test, gave only 5 per cent positive reactions, whereas after one year's indenture the percentage rose abruptly to 42 per cent. But there was the curious anomaly that the ' house boys ' who lived in closest contact with Europeans did not show nearly so high a percentage of positive reactions. The only difference between the two lay in the difference in ' diet ', especially in the amount of fat consumed. This is a matter that should be followed up.

" The other point was the possible relations between food deficiency — particularly Vitamin A deficiency — and the question of depopulatio:..

*" Social Questions.*

" There are other important matters which would repay enquiry, such as the influence of social conditions on the development of disease and their relationship to vital statistics, and which could be included in the scope of an investigation such as that contemplated.

" I feel, however, that enough has been said to show how desirable it would be to commence a limited enquiry along the lines proposed.

" The effects of this would be twofold :

"(1) On the one hand, it would report upon the conditions which are most prevalent in the different groups visited, the preventive measures at present in force and the investigational work already carried out. This, combined with the enquiries carried out by the Commission itself and the suggestions made, would be very helpful to all administrations in their efforts.

" (2) On the other hand, additional matters would be indicated in regard to which further study along definite lines could with advantage be undertaken by the groups concerned, either individually or by concerted effort as seems most desirable.

" An enquiry on these lines could be completed in six months, and would include Papua, New Guinea, Solomon Islands, Fiji, New Caledonia and New Hebrides."

The PRESIDENT thanked Dr. Park for his statement.

Sir George BUCHANAN felt sure that Dr. Norman White, who like himself had been present at the Pacific Health Conference at Melbourne, would agree that Dr. Park had stated the case very well on the lines which that Conference intended. It was not now proposed that there should be a large expert enquiry or research committee, but simply an exploratory mission by one or two people to settle with greater precision what were the points on which investigation would be of the most value for the islands in general, and also for the advancement of epidemiological knowledge. As regards Fiji, the Gilbert and Ellice Islands and the Solomon Islands, which were British colonies, he could assure the Committee that the British Government would welcome such a mission and give it any facilities in its power. The reception of the mission would naturally be a matter for the colonial administrations themselves, but he felt confident that it would be most cordially received by them.

The cost of a small mission of this kind would not be great and he assumed that the colonies would not be called upon to contribute towards it otherwise than by facilitating the work of the mission when it arrived. He was not in a position to make any statement as regards the views of the colonial administrations if the question of raising a special fund arose.

It would be advisable, in visiting certain territories, to be careful to arrange for a suitable time. Thus, in the case of the Solomon Islands, a mission from the Rockefeller Foundation was coming at the beginning of next year. The small administrations of these Islands would find it difficult to cope with two missions at once.

Dr. TSURUMI said that, over and above the argument that the League's work must, under its constitution, be international, there was every ground for urging, as the Australian Government had urged, that the enquiry into health problems conducted on behalf of the Health Organisation should be extended to the Pacific islands. After the International Health Conference at Melbourne last December, close co-operation had been established between the Health Organisation — in particular, the Singapore Bureau — and the Australian Government with the object of obtaining epidemiological data for that part of the world. It was especially important — indeed even essential — to have information upon health conditions throughout the entire length and breadth of the Pacific islands by reason of the increasing importance of international communications. Furthermore, Dr. Norman White had visited those districts in the previous year in order to investigate general health conditions. Consequently, if the Australian Government's proposal were accepted, it would be much easier for the Health Organisation to carry out an enquiry into health conditions with the assistance of that Government. Nevertheless, Dr. Tsurumi thought that the best method to follow would be to attach to the Commission of Enquiry experts from certain countries which had mandates over the islands in the Pacific Ocean.

*The draft resolution proposed by Dr. Jitta was adopted* (see Annex 153).

(*b*) DRAFT CONSTITUTION OF THE ADVISORY COUNCIL OF THE SINGAPORE BUREAU.

Dr. JITTA read the draft resolution passed by the Far East Commission with regard to the draft Constitution of the Advisory Council of the Singapore Bureau.

On behalf of his colleagues, he wished to offer the President his warmest wishes for the success of the voyage which he was about to make to India and begged him to tell the Advisory Council how greatly the Health Committee appreciated the results which had already been obtained and which would most certainly still have greater effect once the Advisory Council had been finally established.

Dr. TSURUMI, dealing first with the question of the allocation of seats on the Advisory Council, ventured to ask the Health Committee to allot a second seat to the Japanese colonies for the reasons mentioned in the Medical Director's report. He had made a sufficiently detailed statement on the Japanese point of view at the Health Committee's session in February last.

As regards the draft Constitution of the Advisory Council, he had sent the Medical Director a note containing certain comments made by the Japanese Government.

The question of giving the Singapore Bureau a wider measure of independence was, to his mind, a delicate one, the solution of which appeared somewhat difficult when considered from the theoretical and practical points of view.

The Advisory Council consisted of the official representatives of certain Far-Eastern countries, who were responsible to their Governments, as Dr. Graham, President of the Advisory Council, had pointed out at the Health Committee's previous session. It was not the same, however, as regards the constitution of a sub-committee of the Health Committee. Although there were, generally speaking, official members on a sub-committee, every member of a sub-committee was appointed for his individual qualifications and knowledge, without having any responsibility towards his Government. For this reason, it was difficult, theroretically, to regard the Advisory Council of the Singapore Bureau as a sub-committee of the Health Committee.

Nevertheless, in the opinion of the Japanese Government, the situation would be complicated, from the point of view of the work of the Health Organisation taken as a whole, if the Eastern Bureau were given a wider measure of independence outside the draft Constitution of the Advisory Council mentioned above. In other terms, it would be better in practice that the Bureau should continue to work in accordance with the present regulations of the Health Organisation. Moreover, the question might be reconsidered later.

Sir George BUCHANAN, referring to the report of the Far East Commission, just read by Dr. Jitta, said that he accepted the second and third paragraphs of the report, but he desired merely to add a personal observation. He felt sure that, if corresponding representations had been made by the British Government for additional representation of the numerous separate British colonies in that region, they would have been received by the Committee with equal sympathy, and that the President in that case would have been asked to convey a similar expression of sympathy to the Advisory Council.

Dr. JITTA said that the question of representation on the Advisory Council of countries other than Japan had not been discussed on this occasion by the Far East Commission. He was accordingly unable to reply to Sir George Buchanan's observation. He thought that observation correct, but as much might be said with regard to the Netherlands and the Dutch Indies. The question, moreover, was not on the agenda.

*The draft resolution proposed by Dr. Jitta was adopted* (see Annex 153).

### 337. Work of the Cancer Commission : Draft Resolution.

The draft resolution of the Health Committee on the report submitted by the Cancer Commission was read.

Professor PITTALUGA understood from the text submitted to the Committee that the Health Section and the Medical Director were requested, in consultation with the Chairman of the Cancer Commission, to make certain arrangements with cancerologists before the analysis of the proposals which might be received was examined by the Health Committee at its next session. If that were correct, would the programme, if any, to be carried out by these new experts be examined beforehand ?

Sir George BUCHANAN explained that the steps proposed in the last paragraph for obtaining the preliminary opinion of experts were intended to facilitate the carrying-out of the work contemplated in paragraph 3.

M. VELGHE said that the French text in the draft contained in paragraph 4, the word " arrangements ", because this word appeared in the English text. According to Sir George Buchanan's explanations, the word " démarches " would be more appropriate, and this word should be substituted for " arrangements ".

The draft resolution was in accordance with the proposals of the Cancer Commission as adopted at the morning meeting. The opinions that had been advanced, and any further opinions which cancerologists might be asked to give, should be obtained, and it was only after the consultations in question had been made that the Cancer Commission would submit a report to the Health Committee next April.

Dr. LUTRARIO noted that the draft resolution made no allowance for a suggestion adopted by the Cancer Commission with regard to the printing of the report.

Professor PITTALUGA said that the amendment suggested by M. Velghe for the last paragraph of the French text satisfied him. There was of course no question of entering into any engagement at present with the cancerologists, but merely of taking certain steps with a view to obtaining their preliminary views.

Sir George BUCHANAN, in reply to Dr. Lutrario, said that it had seemed inadvisable for the resolution to include what was rather a domestic detail ; but the position about printing the additional reports was quite understood.

Dr. LUTRARIO took note of Sir George Buchanan's assurance. His observation referred, not only to the final report of the Chairman of the Cancer Commission, but also to the reports from the groups.

M. VELGHE observed that the question nevertheless depended upon the available sums of money.

Dr. RAJCHMAN explained that the final decision as regards all publications lay with a body which had been set up on the proposal of the Fourth Committee, namely, the Publications Committee, whose decisions were subordinated to budget considerations.

Sir George BUCHANAN felt, nevertheless, that Dr. Lutrario might be reassured. The importance of printing the reports of the Italian group, just come to hand, had been formally recognised by the Cancer Commission, and he was sure that the Medical Director would see that the Commission's recommendations in the matter received every consideration.

*The draft resolution was adopted with certain textual amendments.* (see Annex 153).

### 338. Work of the Smallpox and Vaccination Commission : Report by Professor Jorge and Note by Dr. Jitta.

Professor JORGE read his report (Annex 151) and added that, as regards the first point — epidemics — an immediate resolution was required. The Smallpox Commission had believed that the present statement might serve as a memorandum to be sent to the different Governments with a covering letter from the Health Section and an appropriate form or questionnaire. The results would be collected by the Health Section, which would send the Smallpox Commission an analytical statement on the basis of which the latter Commission would present its final report to the Health Committee.

The passage in the report dealing with experimental research work was a recommendation to the Health Section to take the matter into consideration.

Dr. JITTA read his note (Annex 151 *a*) on post-vaccinal encephalitis in the Netherlands, and drew attention to the graph in the note showing the curve for cases of encephalitis occurring in the Netherlands month by month from 1923 to 1927.

The graph showed a certain relation between the incidence of encephalitis lethargica and that of post-vaccinal encephalitis. This incidence had been noted five or six years previously and then seemed to have disappeared. A coincidence was to be observed in 1926, but this seemed due to chance. Anatomical symptoms varied very widely, like neurological symptoms, and in particular their sequelæ, since the consequences of encephalitis lethargica were observable throughout the whole of life, whereas post-vaccinal encephalitis left no traces in patients who had been cured.

Dr. Jitta's note also contained information on the employment of neuro-vaccine and dermo-vaccine, and it seemed that the employment of one vaccine or another was not in question.

Concluding, Dr. Jitta said that cases of post-vaccinal encephalitis had caused so much alarm in the Netherlands that he was afraid that it might be impossible to continue compulsory vaccination.

Sir George BUCHANAN communicated an interim note on post-vaccinal nervous diseases in England. It would be advisable for the Smallpox and Vaccination Commission to await the report which the Departmental Committee in England, appointed to study vaccination questions, was now preparing, and also to await additional data from other countries, particularly from the Netherlands.

Professor JORGE, referring to Dr. Jitta's note, said that, prior to the recent observations made in the Netherlands, he had already regarded it as proved that post-vaccinal encephalitis had no relation to the lethargic virus, and had said so in his reports on the question presented to the Conferences of The Hague and Berlin. While the two curves concorded in the Netherlands, they were, on the other hand, completely divergent in England.

As regards the use of one lymph or another, post-vaccinal encephalitis could not be attributed to any given quality of vaccine ; this conclusion had already been reached at the Hague Conference. The encephalitis series continued in spite of a change of lymphs. The influence of the lymph bacteria was outside the question ; these were common bacteria and, in the autopsies carried out up to the present, no pathogenic bacterium had been disclosed. The failure of the so-called neuro-vaccine was to be foreseen — it was a virus like any other, cultivated on the brain of the rabbit instead of the stomach of the heifer. The cases of encephalitis persisted.

Professor Jorge's opinion was already known. On seeing the first statistics, he had been able to demonstrate a fact which the last series entirely confirmed : in 80 per cent of the cases, encephalitis appeared from the tenth to the thirteenth day : viz., at a fixed period which was precisely that of the generalisation of the vaccinal virus. It was for this reason that he thought it very improbable that there could be any question of another virus. But this was neither the time nor the place to open a discussion on this subject.

Professor PITTALUGA urged one fundamental consideration. Cases of encephalitis lethargica had been recorded in Spain, but not a single case of post-vaccinal encephalitis in which the two vaccines were used. Two conclusions could be drawn ; first, post-vaccinal encephalitis

had unquestionably no relation etiologically to encephalitis lethargica ; second, post-vaccinal encephalitis was certainly the result of vaccination, but occurring in peoples and individuals who already had another virus which was rendered active by the vaccination, or whose constitutional or organic condition was such as to cause an outbreak of this affection.

Dr. HAMEL stated that, in Germany, only a quite small number of cases of encephalitis after vaccination had been reported hitherto (four in three years), although the number of children vaccinated under the compulsory vaccination regulations which prescribed a first vaccination before the end of the first year of life and re-vaccination in the tenth year was extraordinarily high annually. On the other hand, it was striking that, according to the statistics submitted by Dr. Jitta, the cases of children contracting encephalitis postvaccinalis in the Netherlands occurred almost exclusively from the second to the sixth year, whereas only one case of sickness had been reported out of 27,400 vaccinations in the first year, and 35,300 after the sixth year. It would accordingly be desirable to examine more closely the relations between the age at which children were vaccinated and the incidence of cases of encephalitis postvaccinalis, and to enquire whether any special precautions were indicated as regards the time at which vaccination should be effected.

Dr. JITTA replied that similar observations had been made elsewhere, but he uttered a warning against drawing premature conclusions, for it had been observed that post-vaccinal encephalitis was much more frequent in the country and in small communities than in the big cities. This was not because health conditions were worse in the former, but because vaccination in the cities was carried out more frequently in the first years of life. He was intending to propose in the Netherlands the vaccination of children in the first years of life, but so serious a measure would be impossible with the present state of feeling in his country. The question, however, was still under consideration, and Dr. Jitta thanked Dr. Hamel for having drawn attention to the point.

Sir George BUCHANAN proposed a preliminary draft resolution.

The PRESIDENT said that the preliminary draft would be revised by the Drafting Committee and submitted at the next meeting.

### 339. Question of Seamen's Welfare.

Dr. RAYNAUD reminded the Committee that, in the previous year, the President had given an account of a conference organised by the League of Red Cross Societies at Oslo to deal with seamen's welfare. He himself had been instructed to represent the Health Committee on the Seamen's Welfare Commission. He had been prevented by illness from attending the meeting, which had occurred in February, and had been replaced by Professor Léon Bernard. The League of Red Cross Societies had organised for the following week a meeting at which the question of the treatment of seamen on ships which had no medical officer would be examined. The use of the wireless, the preparation of a memorandum for ships' captains, and the standardisation of medicine chests had been suggested.

### 340. Date of the Next Session of the Committee.

The PRESIDENT said that it had been proposed to hold the next session from April 23rd to 28th, 1928.

A discussion followed in which Dr. RAJCHMAN said that the Committee might perhaps later examine the question of holding a summer session in place of the spring session, the second session in that case to be held towards the end of the year.

Professor PITTALUGA stressed the fatigue resulting from the fact that the sessions of the Malaria Commission and Health Committee followed one another without a break.

Dr. LUTRARIO thought it essential that there should be an interval of about six months between the two annual sessions of the Committee so that the work might be sufficiently far advanced in the interval between the sessions. An interval between the sessions of the Malaria Commission and those of the Health Committee would increase travelling expenses and the loss of time spent in travelling.

Dr. RAJCHMAN said that the meeting of the Malaria Commission might be advanced by a few days so as to allow of a short rest before the opening of the Health Committee's session.

M. VELGHE was unable to pronounce on the question of a summer session without having consulted the Permanent Committee. *Prima facie*, he thought the suggestion would encounter some opposition.

Sir George BUCHANAN considered that it would not be advisable to make a serious change during 1928 as those concerned in distant countries needed to make their arrangements a long time in advance.

*The Committee decided to hold the next session from April 23rd-28th*, 1928.

## EIGHTH MEETING

*Held on Friday, November 4th, 1927, at 10 a.m.*

*President :* Dr. Th. MADSEN.

### 341. Welfare of Blind Persons and the Prevention of Blindness.

Sir George BUCHANAN referred to the proposal in his letter dated August 22nd, 1927, to the President (Annex 152) that the Committee would take up the study of the following question : " Consideration of the steps which can be taken by the Committee to receive and exchange information on matters of international interest which affect the welfare of blind persons and the prevention of blindness." He explained that the British Government found itself in need of information regarding the practice and experience of other countries on this subject, and had reason to believe that many different countries also felt the need of an international study of the question. The League, through the Health Organisation, and also because of its relations with the International Labour Office, would seem to be in a particularly favourable position to obtain information on the conditions of work possible for blind people and on the problem of the education of the blind.

He had been in some doubt, from the official point of view, whether to submit this proposal to the Office international d'hygiène publique or to the Health Committee. As, under present rules, the Presidents of both bodies consult mutually on the agenda, he had made the proposal to both, with the result that the subject now appeared on the agenda of the present session of the Health Committee.

Professor PITTALUGA thought that the problem might be examined from three points of view :

(1) The etiological point of view — in other words, the causes of blindness in general ;

(2) The social point of view — in other words, the protection of the blind ;

(3) The labour point of view — in other words, the education of the blind.

A beginning might be made by establishing general statistics of blindness. Data now existed in various countries providing a basis which would enable the Committee to decide with which of the three aspects of the question it would be most useful for it to deal.

He accordingly proposed to accept the suggestion of Sir George Buchanan in principle and to ask the Health Section to undertake a demographic enquiry. There did not seem to be any need to appoint a special committee.

Dr. JITTA said he could not decide as to the last point. Considerable attention had been given to the problem of the education of the blind in the Netherlands for the last fifty years, and certain towns had for that purpose a very complete organisation.

Statistics would be easy to collect, as they existed in all countries. He would like those statistics to be as complete as possible. He would take the opportunity of mentioning that Dr. Lutrario and himself had contemplated an enquiry into trachoma, which was one of the most frequent causes of blindness. The proposed statistics would assist Dr. Lutrario and himself in their enquiries.

Dr. LUTRARIO also supported the proposal of Sir George Buchanan.

Dr. RAJCHMAN emphasised the importance of the work of Professor Pittaluga and Dr. Jitta. A more detailed discussion might be held in April. For the moment, the questionnaire might be sent to the Governments in accordance with the suggestion of Sir George Buchanan, as had been done in the case of trachoma. The Committee would decide what it intended to do when it had seen the information collected.

Sir George BUCHANAN cordially thanked the Committee for taking up his proposal.

The PRESIDENT asked Sir George Buchanan to prepare a draft resolution for submission to the Committee.

### 342. Examination of the Draft Report to the Council on the Work of the Eleventh Session of the Committee.

The Committee examined the draft report to the Council on the work of its eleventh session.

*Darling Foundation.*

M. VELGHE, referring to the draft resolution concerning the Darling Foundation, raised certain objections to the preliminary draft statutes, particularly in regard to the act of foundation, the absence of any clause permitting the revision of the statutes, etc. As regarded the awarding of the prize itself, he did not agree that it should be reserved for a living author. Moreover, in view of the possible decrease in the rate of interest, it would be preferable not

to decide in advance that the prize should be given every two years, but to say that it would always amount to 1,000 francs and would be awarded according to the funds available.

Professor PITTALUGA observed that the prize could be awarded for the first time in 1930. The question was not therefore urgent. He proposed to ask the Medical Director to prepare a modified draft of the statutes, taking into account the observations of M. Velghe and the Malaria Commission. The Medical Director would act in agreement with the Chairman of the Malaria Commission and M. Velghe, and the text could be examined at the next session.

*This proposal was adopted, and the Committee decided to suppress the draft resolution relating to the Darling Foundation.*

*Education in Public Health.*

Dr. RAJCHMAN, replying to an observation of Sir George Buchanan regarding paragraph 2 of the resolution, relating to education in public health, explained that the resolutions were preceded by a short introduction for the information of the Council.

Sir George BUCHANAN replied that the resolutions should be clear in themselves. The text should indicate whether it referred to any school of hygiene or only to the schools of Warsaw, Budapest and Zagreb.

Professor PITTALUGA said that, evidently, the resolution was based on the meetings at Budapest and Zagreb, but was not limited to three schools of hygiene.

M. VELGHE supported the contention of Sir George Buchanan, all the more so as the Committee would not see the text of the introduction, which would be prepared later on. He also thought that all schools of hygiene should be covered.

Dr. RAJCHMAN said that a reference to the report of Professor Léon Bernard might easily be made and the draft resolution could be rendered clearer. Paragraph (*a*) would cover all the schools of hygiene which might submit a request, since at the meetings of Budapest and Zagreb there had been representatives of other schools. On the contrary, paragraphs (*b*) and (*c*) covered schools which had submitted definite requests.

Professor OTTOLENGHI said that, at the meetings at Budapest and Zagreb, reference had been made only to those schools. In consequence, he had always believed that the resolution related only to those schools. Moreover, an allusion to schools of hygiene in general would be vague, as they were not all of the same character. It would be better to remain strictly within the limits of the report of Professor Léon Bernard and the discussions at Budapest and Zagreb, all the more so as it was impossible to re-open the discussion in the absence of the Rapporteur.

M. VELGHE agreed that, at the first reading, the resolution had been voted in a limited sense, but there was no objection to enlarging the scope of paragraph (*a*). It was necessary to provide for the possibility of meeting requests which might be made by other schools.

Dr. RAJCHMAN observed that, if at Zagreb the meeting of certain schools only had been discussed, that discussion had been held before the directors of other schools, so that as a matter of fact there had already been a meeting which included directors of other schools. The proposal of Professor Ottolenghi would result in reducing the scope of what had already been done.

Professor OTTOLENGHI maintained that the draft of paragraph (*a*) involved an important extension of what had been decided. The strict maintenance of the previous decision would not prejudice future activities, as the question might be taken up again in three or four months. Nevertheless, he would bow to the majority of the Committee.

*Report of the Medical Director on the Work accomplished since the Ninth Session.*

Sir George BUCHANAN, referring to the resolution concerning the report of the Medical Director, observed that it had been agreed that the report would be amended in various particulars.

Dr. RAJCHMAN said that the final document would be amended, as had been agreed, and that the report of the Medical Director would be reproduced as an annex to the Minutes in the form in which it had been amended by the Committee after discussion.

*The resolutions were adopted with various amendments of form* (Annex 153).

**343. Budget of the Health Organisation.**

Sir George BUCHANAN asked whether the Bureau was prepared to make a communication regarding the budget.

M. VELGHE, observing that the question of the budget was not on the agenda, said that the Bureau had examined all the proposals made for investigations during the next year and had been obliged to note that they considerably exceeded the financial resources available. It had accordingly been necessary to make arrangements to induce the Commissions to limit their work. Nevertheless, it was extremely probable that the resources placed at the disposal of each Commission would suffice to enable them next year to undertake effective work. He would ask his colleagues to realise that every Commission must agree to make certain sacrifices. Moreover, it must be understood that, in the future, if the resources were not adequate, it would be necessary to encourage investigations with an international interest which were undertaken by the Commissions rather than the purely scientific work done by experts.

Sir George BUCHANAN thanked M. Velghe for his explanation. The Committee had the utmost confidence in the Bureau, which in this matter took an extremely heavy responsibility. On its decisions depended to a great extent the direction of the activities taken by the Health Committee. In making these decisions, questions of principle must sometimes arise : for example, if it were proposed to cut down special international expert work and allow considerable expenditure in letting individuals visit Europe to give lectures. In such cases, in view of the very difficult task which the Bureau was asked to perform, might not the latter feel it desirable first to ask the advice of the Health Committee ?

M. VELGHE thanked Sir George Buchanan for his confidence in the Bureau. Evidently the Committee must rely upon the Bureau, but there was a double guarantee. First, the measures adopted by the Bureau had never given rise in the past to any complaints on the part of the Committee. Secondly, in the future, if the members of the Committee were not satisfied with the decisions of the Bureau, it would always be open to them at a later meeting to present their observations.

Replying, in particular, to one of the observations of Sir George Buchanan, M. Velghe observed that it was impossible to use credits for tours in order to finance Commissions, and *vice versa*.

Sir George BUCHANAN entirely agreed with the observations of M. Velghe on the first point. On the other hand, he had always thought that the budget of the Health Organisation should, as far as possible, be regarded as a whole, and that it was not so rigidly divided up into water-tight compartments that it was impossible to effect transfers.

M. VELGHE repeated that the budget of the Health Organisation included special credits which it was impossible to devote to other purposes.

Dr. RAJCHMAN agreed. He referred to the provisions of the Financial Regulations of the League of Nations.

**344. Close of the Session.**

The PRESIDENT congratulated the Committee on the considerable work which it had done, and noted with special satisfaction the results obtained in the relations which had been established by the Health Organisation with European countries, and, particularly, with countries beyond the seas.

He thanked the members of the Commissions and their Chairmen, as well as all his colleagues, for their efforts and for the indulgence which they had always shown to him personally.

As regards the Health Section and the Medical Director, he could only at every session renew his expression of gratitude on behalf of the Committee for their work.

M. VELGHE associated himself with the tribute paid to the Medical Director and to the Health Section and staff of the Secretariat. To the President he would renew, on behalf of the Committee, its expression of confidence, gratitude and sympathy, and would convey to him the best wishes of the Committee for the long journey which he was about to undertake, and which could not fail to achieve results as important as those obtained by his journey to Latin America.

## LIST OF ANNEXES


| | | Page |
|---|---|---|
| 140. | Agenda of the Eleventh Session of the Committee | 15 |
| 141. | Report of the Second Committee to the Eighth Ordinary Session of the Assembly on the Work of the Health Organisation | 54 |
| 142. | Report on the Meeting of Health Experts on Infant Welfare at Montevideo and on the Technical Mission of the President of the Health Committee in the Argentine, Brazil and Uruguay | 57 |
| 142*a*. | Report of the Second Committee to the Eighth Ordinary Session of the Assembly on the Results of the Mission carried out in Certain Latin-American Countries by the President of the Health Committee | 62 |
| 142*b*. | Report by M. Adatci to the Council of the League on the Results of the Mission carried out in Certain Latin-American Countries by the President of the Health Committee | 66 |
| 143. | Report by Dr. Lutrario on the Work of the Malaria Commission | 66 |
| 144. | Report of the Medical Director on the Work of the Health Section since the Ninth Session of the Health Committee | 74 |
| 144*a*. | Report of the Epidemiological Intelligence Conference held at Geneva on October 25th and 26th, 1927 | 101 |
| 144*b*. | Report on the Work of the First Session of the Joint Commission on Health Insurance (Geneva, April 11th and 12th, 1927) | 103 |
| 144*c*. | Report on the Conference of Health Experts on Infant Welfare (Vienna, September 26th to 28th, 1927) | 105 |
| 144*d*. | Report on the First Session of the Commission of Expert Statisticians (Geneva, March 14th to 17th, 1927) | 119 |
| 144*e*. | Observations from British Departments on the Recommendations of the Commission of Expert Statisticians | 126 |
| 144*f*. | Observations of the Governments of the Irish Free State, Estonia, Switzerland and the Netherlands on the Recommendations of the Commission of Expert Statisticians | 127 |
| 144*g*. | Proposals by Dr. E. Roesle for the Establishment of International Morbidity Statistics | 128 |
| 144*h*. | Report on the Work of the International Rabies Conference (April 25th to 30th, 1927) | 132 |
| 145. | Memorandum by the Health Section on the International Notification of Smallpox in Europe | 139 |
| 146. | Report by Professor Léon Bernard on the Conference held at the Inauguration of the Schools of Public Health at Budapest and Zagreb | 141 |
| 147. | Note by the Medical Director on the Programme of Interchanges for 1928 | 144 |
| 148. | Report by Sir George Buchanan on the Work of the Cancer Commission for the Years 1923 to 1927 | 146 |
| 149. | Note by Dr. Carrière on the Application of Article 10 of the International Opium Convention of February 19th, 1925 | 160 |
| 149*a*. | Report by Professor Knaffl-Lenz on the Application of Article 10 of the International Opium Convention of February 19th, 1925 (Eucodal, Dicodide) | 161 |
| 149*b*. | Report by Professor Knaffl-Lenz on the Application of Article 10 of the International Opium Convention of February 19th, 1925 (Benzoyl-morphine and other Morphine Esters) | 162 |
| 150. | Work of the Far East Commission | 164 |
| 150*a*. | Note by Dr. Norman White on Questions arising out of the Resolutions adopted by the International Pacific Conference, Melbourne, December 1926 | 165 |
| 150*b*. | Letter from the Government of the Commonwealth of Australia regarding the Resolutions adopted by the International Pacific Health Conference, Melbourne, December 1926 | 166 |
| 151. | Report by Professor Jorge on the Work of the Smallpox and Vaccination Commission | 167 |
| 151*a*. | Note by Dr. Jitta concerning Post-Vaccinal Encephalitis in the Netherlands | 168 |
| 152. | Note by the Medical Director and Letter from Sir George Buchanan regarding the Welfare of Blind Persons and the Prevention of Blindness | 170 |
| 153. | Report of the Health Committee on the Work of its Eleventh Session | 173 |

C. H. 624 (1).

## ANNEX 140

### AGENDA OF THE ELEVENTH SESSION OF THE COMMITTEE

*Approved on October 28th, 1927.*

I. Council Decisions and Assembly Resolutions.

II. Collaboration with South American Countries (Report of the President of the Health Committee and of the Medical Director on their Mission in Certain Latin-American Countries.)

III. Malaria Commission :

1. Second General Report.
2. Mission in the United States.
3. Courses and Schools of Malariology.
4. Requests for Technical Advice.
5. Programme for 1927-28.
6. Darling Prize Medal Fund.

IV. Medical Director's Report.

V. Opium (Eucodal and Dicodide) :
Report of the Permanent Committee of the Office international d'hygiene publique under Article 8 of the International Opium Convention of 1925 (Resolution No. 12, adopted by the Health Committee on February 18th, at its Ninth Session).

VI. Cancer Commission :
Presentation of Summarising Report on the Work of the Commission during the Years 1923-27, by Sir George Buchanan, Chairman of the Commission.

VII. Resolutions of the Melbourne Conference :
Note by Dr. Norman White regarding the Proposed Co-ordinated Austral Pacific Survey.

VIII. Miscellaneous.
1. Blood Groups.
2. Help to the Blind.

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## ANNEX 141

### REPORT ON THE WORK OF THE HEALTH ORGANISATION PRESENTED TO THE EIGHTH ORDINARY SESSION OF THE ASSEMBLY BY THE SECOND COMMITTEE.

Rapporteur : Sir Ramaswami Ayyar (India).

The reports presented to this Assembly concerning the work of the Health Organisation of the League furnish a record of progress that is gratifying. It is not necessary to attempt any description of the routine work of that Organisation. The scope and objects of this work have been fully described in reports to this and to previous Assemblies. Attention should, however, be directed to a few aspects of the work of special interest at the present time.

Since the last Assembly a new Health Commitee has been appointed. A welcome innovation has been the appointment of expert assessors, who take part in the work of the Committee in an advisory capacity. The appointment of assessors from countries as far distant from Geneva as Australia and Japan is further evidence of the tendency towards universality of the work of the Health Organisation, which received favourable comment during our meetings last year.

The past year has seen a still further development of the Bureau of Epidemiological Intelligence at Singapore. The work of this Bureau has now become of administrative interest and importance, not only to countries in the East, where the benefits are obvious,

but also to all the many other countries having commercial relations with the East. Weekly telegraphic reports concerning the health conditions in no less than 137 ports of Asia, Australasia and the East Coast of Africa are despatched to the Bureau, and this information is broadcast throughout this area from an increased number of wireless telegraph stations. Movements of epidemic disease can thus be watched and studied and measures taken in advance to repel invasion of infection.

The permanence of the Singapore Bureau, it is submitted, should be assured by the League, whose authorities should ensure its adequate financing. Especially worthy of remembrance is the circumstance that the activities of this Organisation form the chief visible link between Eastern countries and the League Organisation. That those countries — some of whom, like India, are large contributors to the general budget — appreciate this aspect of the League's work is evident from their close co-operation with its labours. Thus, for instance, India is represented on the Health Committee, to the mutual advantage, it is hoped, of India and of the Health Organisation itself. The Government of India, which welcomes his appointment, has not only sent Colonel Graham, its representative, to attend the meeting in January, but is also co-operating by broadcasting the Bureau's weekly epidemiological reports.

The weekly distribution of the Singapore and other current epidemiological information of importance from the wireless station at Nauen in Germany is a still more recent development which proved of very great assistance to administrations in Europe and elsewhere during the influenza epidemic of the early months of this year. During the course of that outbreak all European Health Administrations furnished the Health Organisation with weekly telegraphic summaries of the progress of the epidemic, which information was broadcast twice a week from the Nauen station. The demonstration thus afforded of the capabilities of our Health Organisation to supply prompt and reliable information in the event of the appearance of serious epidemic disease has occasioned much favourable comment.

It is gratifying to know that a way has been found of utilising the efficient epidemiological intelligence work of the Health Organisation, including that of the Singapore Bureau, in discharging the obligations imposed on the Office international d'hygiene publique and on signatory Governments by the International Sanitary Convention of 1926.

Reference should also be made to the further agreement concluded between the Permanent Committee of the Office international d'hygiène publique and the Health Committee, with the object of securing still closer co-ordination of the work of these two bodies.

The recent termination of the work of the International Sleeping-Sickness Commission deserves more than passing notice. It is another striking example of the widespread nature of the Health Organisation's activities. The Commission has produced a report of very considerable scientific interest and importance and has been able to put forward suggestions for international co-operation, by the Administrations interested, in the control of this disease, whose prevention is of vital public health and economic importance to large territories in Africa.

This Assembly has heard much during previous years regarding the so-called interchanges of public health officers — a system whereby health officers of many countries have been able to profit by the experience of other countries in handling health problems that are important to all. The interchange, or study tour, that is to begin in Germany during the course of the present month has features of special interest, and will be attended by as many as thirty officers holding important positions in the health administrations of almost as many countries.

Following the example of the interchange held in Japan in 1925, one is being arranged in India with the active assistance of the central and local Governments, and great results are anticipated therefrom. It is hoped that the President of the Health Committee and the Director of the Health Section will be able to join the party so as to produce the best results both from the point of view of the League and of the localities concerned. It may not be out of place to emphasise that these interchanges furnish a conspicuous example of international co-operation and emphasise and carry into practice the ideals of universality embodied in the Covenant of the League. By this means and by the dissemination of intelligence as to epidemics and research into epidemics, the administrations and the peoples of distant countries are brought into close touch with the central Organisation of the League, and the mutual benefit derivable from the contacts thus established cannot be over-estimated.

An interesting development growing out of this system of study tours has been the organisation of international health courses. These courses last about seven weeks. They consist of lectures, discussions and practical demonstrations at which the working of public health and sanitary institutions and sanitary engineering plants are thoroughly explained. The subjects dealt with cover a large range, special prominence being given to public health problems of present-day importance and to recent development of public health science and research. These courses afford an opportunity to health officers belonging to many administrations of hearing the views of prominent experts regarding such matters. The first of such courses was held in Paris in the early months of this year, and a second course will be held in London in November and December. In Paris all the lectures were delivered in French ; in London the course will be held in English.

The Malaria Commission has recently published a general report, which illustrates the value of this Commission's work to the many countries in which malaria is so prevalent a cause of ill-health. The Commission has made extensive tours throughout all countries in Europe in which malaria presents problems of public health importance, and in Syria

and Palestine. Two members of the Commission have recently paid a visit to the United States of America. The opportunity afforded by these tours for discussion between the prominent experts forming the Commission and the malaria experts of the countries visited concerning problems of great local importance have been of the utmost value. The Health Committee continues to receive requests for advice concerning malaria problems, and through its Malaria Commission it has recently been able to render signal service to Bulgaria. The Government of India hopes that it may be possible for this Commission to visit India during the latter half of 1928 and it is confident that, if this invitation is accepted, every effort will be made by the various local Governments in India to make the visit interesting and helpful. Reference should also be made to the malaria courses that have been organised by the Health Organisation at the Faculty of Medicine, Paris, the London School of Hygiene and Tropical Medicine, and at the Institute of Maritime and Tropical Medicine, Hamburg. A laboratory course of some four weeks' duration at one or the other of these institutes is followed by two months' work in certain malaria districts of Italy, Spain and the Kingdom of the Serbs, Croats and Slovenes during which participants have an opportunity of seeing and taking part in anti-malaria work there being carried out. The expenses incurred by attendance at these malaria courses for a necessarily limited number of medical officers engaged in malaria work in Government employ in different countries is a charge against the Health Organisation budget, and an increasing number of applications received for attendance at these courses is evidence of their great utility.

Another excellent example of the manner in which a League technical organisation can secure collaboration in dealing with scientific problems is afforded by the International Rabies Conference, which was held in Paris in April last and wherein my country participated through two experts with practical experience of the subject. Hydrophobia, though nowhere an important cause of mortality in comparison with that occasioned by epidemic disease, is nevertheless in certain countries a problem of great practical importance. Since Pasteur discovered the preventive treatment that bears his name, institutes for the treatment of persons bitten by rabid animals have sprung up all over the world. In the course of time, modifications have been introduced into the treatment as instituted by Pasteur, so that at the present time very divergent methods are employed. The Conference arranged by the Health Organisation afforded the first opportunity there has been for directors of institutes from all parts of the world to meet and compare experiences of the results obtained with the various modifications of the original Pasteur method that are in use in their laboratories. The technical discussions that took place were of the greatest possible value, and the report of the Conference will be an authoritative statement regarding many difficult scientific problems and tend towards increased efficiency.

Reference should also be made to two important activities of the Health Organisation which originated in resolutions of the Assembly — enquiries into infant mortality and health insurance respectively.

Several aspects of the study of health insurance are of interest to the International Labour Office, and consequently the Expert Commission which is entrusted with this study consists of twelve members, half of which were nominated by the Governing Body of the International Labour Office and half by the Health Committee. This Commission, at its first meeting in Geneva in April last, decided on a programme of enquiry into certain aspects of public health and social insurance, from the point of view of preventive medicine, in certain selected countries. The personnel charged with each of these enquiries is representative of both the public health and the social aspects of insurance. In view of the great interest with which questions of health insurance are being considered in many countries at the present time, the results of this study will be looked forward to with special interest.

The infant welfare enquiry is likewise in the hands of an Expert Commission nominated by the Health Committee, the members of which have been selected in view of their special competence in this branch of public health work. The enquiry that is now being carried out, on exactly comparable lines, in seven European countries (in areas with high and low infant mortality rates respectively, and in urban and rural districts) into the immediate and contributing causes of all infant deaths occurring in such areas is being extended to certain Latin-American countries on exactly comparable lines. The results of this investigation can hardly fail to contribute to a saving of life and to the betterment of the physical condition of generations yet to come.

The Second Committee also considered the recommendations adopted by the International Pacific Health Conference held in Melbourne in December 1926 relating to the study of important problems presented by prevailing health conditions in that part of the world, and the possibility of the League Health Organisation's being able to render assistance in their elucidation, in accordance with the request made by the Government of the Commonwealth of Australia.

* * *

In conclusion, I have the honour, on behalf of the Second Committee, to propose the following resolution :

" The Assembly :

" Having taken note of the reports (documents A. 9. 1927. III and A. 13 & A. 13 (*a*) (Extract No. 1) dealing with the work of the Health Organisation of the League during the past year, expresses its gratification at the continued development of its international activities ;

" Notes with satisfaction the growth and increasing usefulness of the work of the Epidemiological Intelligence Bureau at Singapore, due in large measure to the sympathetic co-operation of all Eastern Administrations, in whose interest it was primarily created ;

" Notes with satisfaction the terms of the Agreement concluded between the League of Nations and the Permanent Committee of the Office international d'hygiène publique, whereby the services of the Singapore Bureau will be made available in the discharge, on behalf of the Office, of certain of the obligations imposed by the International Sanitary Convention of Paris 1926 and also the further agreement recently concluded with the object of further increasing the mutual co-operation in other directions between the Health Organisation and the Office international d'hygiène publique ;

" Expresses its appreciation of the work accomplished by the Malaria Commission, the Sleeping-Sickness Commission, and the International Rabies Conference, and of the progress made in the investigations now being carried out with regard to infant mortality and health insurance.

" Further, the Assembly, noting the recommendations which have been made by the International Pacific Health Conference held in Melbourne in December 1926 in relation to the work which might be undertaken by the Health Organisation for the study of health problems in the Pacific area, expresses its hope that the possibilities of action in this sense will receive full and early consideration by the Health Committee ;

" The Assembly records its unqualified approval and appreciation of the services rendered to international public health by the Health Committee and its expert Commissions. "

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A.49.1927.III.

ANNEX 142.

## REPORT ON THE MEETING OF HEALTH EXPERTS ON INFANT WELFARE AND ON THE TECHNICAL MISSION OF THE PRESIDENT OF THE HEALTH COMMITTEE IN THE ARGENTINE, BRAZIL AND URUGUAY.

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*Note by the Secretary-General.*

In accordance with the Council resolution of September 3rd, 1927, the Secretary-General has the honour to communicate to the delegates to the eighth ordinary session of the Assembly:

1. Report by the President of the Health Committee on his technical mission to certain South American countries; with one annex.
2. Report by M. Adatci to the Council.

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C. 444. 1927. III.

### 1. REPORT BY THE PRESIDENT OF THE HEALTH COMMITTEE ON HIS TECHNICAL MISSION TO CERTAIN SOUTH AMERICAN COUNTRIES.

The Council of the League of Nations, being anxious to develop technical relations with Latin America, approved the recommendation of the Health Committee that its President and the Medical Director of the Health Section should be delegated to attend the meeting of experts on Child Hygiene of Latin-American countries held at Montevideo, with the approval of the Uruguayan Government, on June 6th, 1927.

The object of our mission was to place at the disposal of the Montevideo Conference the experience of the groups of European experts (Austrian, British, Dutch, French, German, Italian and Norwegian) who have studied the same problems in Europe. It was understood that we should confer with the representatives of the health administrations of the countries which we were to visit in regard to the work of the Health Organisation in general and particularly in regard to work on the special problems of Latin America.

At the request of the Assembly at its fifth and sixth ordinary sessions, the Health Organisation undertook an investigation of the problem of infant mortality, one of the most important questions of child hygiene. The safeguarding of life in early infancy is a question which, particularly since the war, has occupied the attention of the authorities and the public in every country in the world, and a close analysis of the combination of sanitary, medical and social factors that cause infant mortality, which is still very high in many countries, and a comparison of the results obtained are urgently required. Useful results can only be obtained by an international investigation undertaken by specialists of worldwide repute.

This investigation has been in progress for some months in Austria, France, Germany, Great Britain, Italy, the Netherlands and Norway, following a uniform programme carefully prepared by the group of European specialists.

From the first, the Assembly delegations of the Latin-American countries and the Latin-American members of the Health Committee have asked that this investigation should be extended to their own countries, and the Health Committee invited eminent public health experts and pediatrists in the Argentine, Bolivia, Brazil, Chile, Paraguay and Uruguay to consider the possibility of undertaking similar investigations in their own countries.

These experts, who met at Montevideo at the beginning of June, were the following:

Professor Gregorio Aráoz ALFARO, President of the National Council of Hygiene (the Argentine) and member of the Health Committee of the League of Nations;

Dr. João de Barros BARRETO, Chief Assistant to the Director of the Federal Public Health Service (Brazil);

Dr. Velasco BLANCO, Deputy-Director of the Federal Service of Hygiene (Bolivia);

Professor Andres GUBETICH, Director of the National Department of Health and of Public Welfare at Asunçion (Paraguay);

Professor L. Calvo MACKENNA, Vice-President of the National Society for Child Welfare; Medical Director of the Orphanage of Santiago de Chile;

Professor Luis MORQUIO, Professor at the Montevideo Clinic of Pediatry (Uruguay).

The members of the Conference discussed in detail the methods to be followed in the enquiries which they were in a position to undertake in their respective countries. They decided to recommend that the investigation should begin on January 1st, 1928, in the Argentine, Brazil, Chile and Uruguay, in districts selected on account of the particular ethnical character of the inhabitants and the sanitary and medical organisation and conditions in the provinces chosen.

The methods recommended by the European group were adopted, with very slight modifications to meet the special requirements of Latin America. It was decided that in carrying out these enquiries close contact would be maintained with the European experts. Public opinion in the countries concerned is awaiting the results with a very real practical interest.

The appendix (C.H.617) gives a full report of the resolutions adopted at the Montevideo Conference.

* * *

We examined jointly with the public authorities, the Directors of the Federal Health Administrations and the Latin-American members of the Health Committee how far the work now being carried out by our Health Committee would meet the requirements of these administrations and which of our activities were of special interest to those countries.

It was clear from these discussions that the experience acquired by our Health Organisation in various fields, such as epidemiological intelligence, public health statistics, serological standardisation, the work of the Malaria Commission, public health training, etc., could be placed at the disposal of the technical services concerned.

It is also clear that, just as certain questions which concern European countries — such as malaria and investigations regarding standardisation — have been dealt with by the Health Committee, other problems arise which relate more especially to Latin America.

As the essential purpose of the League Health Organisation is to serve as a technical intermediary between the various health services and to help them to solve those of their problems which are of international importance, we considered with our colleagues which of the problems before them could be studied by the Health Committee.

This necessarily short examination showed that investigations into the contagiousness of leprosy would be of very great importance, as this problem affects not only the countries of Latin America but many countries in other parts of the world; that by co-operation between different countries it would be possible to give very useful demonstrations of the best methods of preserving life in infancy, which is a highly important factor in national development from both the demographic and the economic point of view; that public health instruction and the training of health

personnel as carried out in other countries are urgently necessary to-day; that just as the experience acquired by Latin America in the control of malaria is of great value to our Malaria Commission, so our experience might be profitably utilised in some of these countries to help to remove certain of the difficulties with which the health authorities are faced.

Several suggestions were made to us for linking up organically the League Health Committee's work with the constructive efforts being made by health administrations in Latin America to solve some of these problems. For instance, the health administration of the *Argentine* is anxious to establish at Buenos Aires a centre for training the medical and health personnel required for the infant welfare services and the campaign against infant mortality. This centre would be a logical development of the current enquiry into the causes of infant mortality; it could utilise rural health centres which would be formed in the various provinces for purposes of demonstration. It would be open to all Latin-American doctors.

The Argentine Government expressed the fullest sympathy with the suggestions made by Professor G. Aráoz Alfaro, member of the Health Committee and President of the Argentine National Health Council.

Professor Carlos Chagas, who has been a member of the Health Committee from its beginning and is Director of the Oswaldo Cruz Institute at Rio de Janeiro, and Dr. Clementino Fraga, Director of the Brazilian Federal Public Health Service, have suggested to us that international research work on leprosy should be undertaken under the auspices of the League. This question has already been studied by the Health Committee, and there is no doubt of its international importance. A prominent Brazilian, M. Guilherme Guinle (who has already endowed his country with a magnificent institute for the control of social diseases and is establishing another for the study of cancer), would be prepared to contribute 50,000 Swiss francs a year towards the maintenance of such a leprosy research centre.

The experience acquired by the Health Committee in the organisation of the international courses of advanced public health training which were held this year in Paris and London made a great impression on the health administrations and the members of the Health Committee in the countries which we visited. Conditions are specially favourable for the promotion of this kind of training at Rio de Janeiro. Indeed, advanced courses of health training have already been organised for some time at the Medical Research Institute. This Institute was started thanks to the magnificent efforts of the late Professor Oswaldo Cruz, and his successors have so continued the development of his Institute that it is now, under the direction of Professor Carlos Chagas, one of the foremost institutions of medical research in the world.

The Federal Government of Brazil showed great interest in the future development, under the League's auspices, of public health activities at Rio de Janeiro in these two fields.

We feel strongly, as we have already pointed out, that it is most important that the benefit of the Health Organisation's experience should be available for health administrations in Latin America. This co-operation could take various practical forms, as in the investigation of the plague foci existing in the Argentine; in serological standardisation (for example, at the Institutes of Hygiene at São Paulo, Montevideo and Buenos Aires) and in control measures against malaria (in particular, at Santa Cruz, in the Federal District of Rio de Janeiro).

Further, an important form of co-operation might be effected between the Mixed Commission of the Health Committee, now studying health insurance in Europe, and the sanitary administration of *Uruguay*, which is at present contemplating extensive reforms. The experience of the Mixed Commission would be of real utility in this process of reorganisation, and we understood that the Government would be prepared to delegate prominent experts to take part in the Commission's work.

We have found, therefore, to our gratification, that a great many opportunities exist for the technical work of the League to become of real value to Latin-American countries — a fact which demonstrates once again the universal character of the League's work. We further encountered a general readiness to accept ideas of closer co-operation between the League of Nations and the Latin-American continent. This question will form an item on the agenda of the October session of the Health Committee, when the technical merits of the various proposals contained in this report will be fully examined and discussed.

In conclusion, it is a pleasure to state that throughout our tour we experienced the greatest kindness and hospitality on all sides, for which we would express our deep appreciation.

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**Appendix.** C.H. 617.

## Report on the Work of the Conference of Health Experts on Infant Welfare,

*Held at Montevideo from June 7th to 11th, 1927.*

### I.

The Health Committee of the League of Nations, having undertaken a study of the causes of infant mortality, in accordance with a resolution adopted by the Assembly of the League in

September 1925, on the proposal of the Netherlands delegation, decided, with the approval of the Council of the League, to extend this enquiry to the countries of South America. The Health Organisation was, in fact, desirous of obtaining the collaboration of experts of these countries in the study of a question of considerable importance for European countries but which appeared to be a problem of particular urgency for countries of Latin America.

II.

The meeting at Montevideo is the first League of Nations conference which has been held in a Latin-American country. The Government of Uruguay, which offered to this Conference the most generous hospitality, was desirous of emphasising the importance of this event. The work of the Conference was opened at a formal session in the presence of the President of the Republic, under the presidency of the Minister of Industry and Arts; the Chamber of Deputies passed a special vote for the success of the meeting, and the Senate was good enough to suspend one of its meetings so as to be able to receive the members of the Conference.

III.

Professor Luis Morquio, Professor at the Montevideo Clinic of Pediatry (Uruguay), was elected Honorary President. Dr. Th. Madsen, President of the Health Committee of the League of Nations, presided over the work of the Conference, the technical secretariat of which was in the charge of Dr. L. Rajchman, Medical Director of the Health Organisation.

There were present:

Professor Gregorio Aráoz Alfaro, President of the National Council of Hygiene (the Argentine) and member of the Health Committee of the League of Nations;
Dr. João de Barros Barreto, Chief Assistant to the Director of the Federal Public Health Service (Brazil);
Dr. Velasco Blanco, Deputy-Director of the Federal Service of Hygiene (Bolivia);
Professor Andres Gubetich, Director of the National Department of Health and of Public Welfare at Asunçion (Paraguay);
Professor L. Calvo MacKenna, Vice-President of the National Society for Child Welfare; Medical Director of the Orphanage of Santiago de Chile.

IV.

The members of the Conference summarised the conclusions of the preliminary studies that had been undertaken in their respective countries with the object of selecting areas suitable for the enquiry.

Professor Luis Morquio presented a special study published in the *Bulletin* of the National Health Council of Uruguay. This enquiry showed that, though the infant mortality rate may not be as high in Uruguay as in certain other countries, and though existing statistical data may be sufficient as a basis for general conclusions, nevertheless, the medical causes of infant mortality are not yet known with sufficient exactitude in any large proportion of cases.

Professor G. Aráoz Alfaro presented a very detailed study, and, in view of the data supplied by preliminary enquiries, he proposed to take for the detailed investigation two areas in the town of Buenos Aires — one poor, the other well-to-do — and a rural district in the Province of Buenos Aires as areas having a low mortality rate; the capital of Tucuman, and one or two areas of the same district, are proposed as examples of areas with high infant mortality rates. Professor G. Aráoz Alfaro demonstrated the noteworthy differences which exist between the data collected for these different provinces, and thereby showed the necessity for the proposed enquiry.

Professor Calvo MacKenna, delegate of Chile, placed before the meeting a very complete demographic report on the work done in the Republic, drawn up by the Central Statistical Office. He emphasised the high infant mortality rates of his country and the various factors which might be responsible for these rates, and consulted his colleagues as to the choice of appropriate districts.

Dr. Velasco Blanco, of Bolivia, emphasised the peculiar difficulties of the enquiry in his country. Demographic statistics were insufficient for the purposes of statistical analysis, and, on the other hand, considerable work would be necessary to enlist the confidence of the rural population and of a part of the urban population even in the capital of the country. He insisted, however, on his desire to collaborate with his colleagues and to follow their work, which will be of great assistance to a subsequent enquiry in Bolivia.

Professor B. Barreto, Assistant Director-General of the National Department of Public Health at Rio de Janeiro, attended the meeting in the place of Professor Figueira, who was prevented at the last moment by illness from being present at the Conference. Professor Barreto explained the details of the exhaustive study that had been made by Professor Figueira in urban areas of the Federal District of Rio de Janeiro. He described the organisation of the Federal Health Service and its activities with regard to child welfare. He proposed to select for the purpose of the enquiry the following districts:

(*a*) Three areas in the Federal District of Rio de Janeiro, notably one urban, one suburban and one rural;

(*b*) Two districts in the State of Bahia, where a coloured population predominates: one urban, in the capital, and one rural;

(*c*) An urban area in the town of São Paulo, and two rural areas in the State of São Paulo, in one of which an Italian population predominates, and the other with a mixed working and agricultural population;

(*d*) Eventually two districts in the southern States, with a Slav and German population.

Professor Andres Gubetich, Paraguay, expressed a very lively desire to collaborate in the work of his colleagues. The choice of districts in his country could not be made with the same ease as elsewhere by reason of the lack of precise statistical data and of the limited number of physicians in the State. He proposed to commence with a preliminary enquiry lasting several months, which would enable him to select the areas and to make definite proposals to his colleagues in connection with this matter at the beginning of the coming year.

## V.

After a detailed study of the questionnaire and explanatory notes prepared by the European experts, the members of the Conference decided to adopt the questionnaire; the explanatory notes will likewise be used for the enquiry, but supplementary information will be added thereto in accordance with local necessity. The members of the Conference likewise adopted the principle that the health and medical organisation of the district should be one of the decisive factors in determining the choice of the district. This enquiry could only be undertaken after very detailed preparation of all the machinery necessary to collect and verify data; consequently, the enquiry will be commenced in January 1928 and will last, in accordance with the recommendations of the Health Committee, for a period of twelve months.

## VI.

After an exchange of views regarding the details of the enquiry, the Conference decided:

(1) That a complete enquiry will be undertaken in the districts selected in the Argentine, Brazil, Chile and Uruguay;

(2) That the result of a preliminary enquiry which the members from Bolivia and Paraguay will propose to their respective Governments will be presented to a second meeting of Latin-American experts in the first half of 1928;

(3) That a detailed enquiry will be undertaken in the Argentine, Brazil, Chile and Uruguay, in the following urban and rural districts, subject to subsequent modification:

*Argentine:* The 3rd and 19th districts of the City of Buenos Aires;
The Department of Azul in the Province of Buenos Aires;
The urban district of the town of Tucuman;
The rural districts of Monteros and Famaillé in the Province of Tucuman.

*Brazil:* *Federal District (Rio de Janeiro):* Districts of Sant'Anna (urban); Inhauma (suburban); Santa Cruz (rural). It may be possible, after the preliminary enquiry, and with the available personnel, to increase the number of the urban and rural districts by the addition of another municipal area and two rural areas, all in the neighbourhood of those selected.
*The States of Bahia and São Paulo:* The final choice would depend on the arrangements to be made with the Health Services of these States

*Chile:* The sphere of activity of the Child Welfare Centre " Mercedes Lazcano ", and of the " Hipodromo Chile " Centre in the centre and the north of the town of Santiago, respectively.
The little town of San Bernardo, 16 kilometres to the south of the capital.

*Uruguay:* *Montevideo:* 7th Judicial Section;
12th » »
15th » »
13th » » (Cerro).
*Canelones:* 6th Judicial Section (Sauce).

(4) That, in order to assure the necessary co-ordination between the enquiry already undertaken in Europe and the detailed studies in the different countries represented at the Conference, the member of the Health Section of the Secretariat of the League of Nations who has been responsible for co-ordinating the European enquiries would be invited to undertake similar technical work in Latin America;

(5) That the complete enquiry will be carried out on the basis of the questionnaire and of the explanatory notes adopted by the Health Committee for European countries;

(6) That, to facilitate the work of the investigators, 10,000 copies of the questionnaire and the explanatory notes will be printed by the General Secretariat of the League of Nations, the Spanish edition being prepared by Professor G. Aráoz Alfaro, and the Portuguese edition by the Health Services of Brazil.

The Conference decided to ask the Governments of the countries where the enquiry will be undertaken to be good enough to give their fullest possible support to these studies, including the grant of necessary means. On the other hand, the Conference is confident that the Health Committee of the League of Nations, whose initiative it appreciates, will recommend to the Assembly to grant for this enquiry in Latin America similar financial support to that which has been given for the enquiry in Europe.

The Conference is convinced that the proposed enquiry, by enabling the medical and social causes of infant mortality to be determined as exactly as possible, will serve as a basis for practical measures, both social and administrative, having as their object the improved development of the population — a problem of fundamental importance for Latin America.

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C.449.1927.III.

## 2. REPORT BY M. ADATCI.

During its last session, the Council expressed its appreciation of the work of the Conference of Health Experts on Infant Welfare, that was convoked by the Health Organisation of the League, with the approval of the Uruguayan Government, at Montevideo from June 7th to 11th, 1927.

I have now the honour to submit to the Council a report presented by the President of the Health Committee upon the results of his mission to Argentina, Brazil and Uruguay in connection with that Conference, the first meeting of a League of Nations Organisation to be held in Latin America. It will be noted that investigations that promise most important results are already in progress. It is very gratifying to note the desire encountered in all the countries visited for closer co-operation in the technical work of the League of Nations.

My colleagues will doubtless desire to forward this interesting report to the Assembly, with the suggestion that it be considered and discussed by the Second Committee. They will certainly also wish to express to the President of the Health Committee their appreciation and thanks for the ability and tact with which he carried out the mission entrusted to him.

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A. 68. 1927. III.

**ANNEX 142a**

## REPORT ON THE RESULTS OF THE MISSION CARRIED OUT IN CERTAIN LATIN-AMERICAN COUNTRIES BY THE PRESIDENT OF THE HEALTH COMMITTEE, PRESENTED TO THE EIGHTH ORDINARY SESSION OF THE ASSEMBLY BY THE SECOND COMMITTEE.

Rapporteur : Professor Luis Calvo MacKenna (Chile).

Although a recent development, the participation of the League of Nations in the public health activities of South America already promises to be fruitful. Preventive medicine, by its very nature, embraces the entire human race and recognises no nationalities or frontiers ; and the work of the Health Organisation, as approved by the Assembly, is of fundamental importance. Countries which geographically are far distant from the seat of the League of Nations realise this more than others, and recognise in this high tribunal the most generous of collaborators and the most competent of advisers.

The problems of infant mortality were the main object of the journey to Latin America of the President of the Health Committee, Professor T. Madsen, and of the Medical Director, Dr. Rajchman. They were to attend the meeting of the International Group of Experts in Child Welfare held at Montevideo last June to study the medico-social causes of infant mortality in Latin-American countries. Moreover, their powers of observation gave them deep insight into general health conditions. Suggestions were submitted, and several plans of real continental importance were proposed. The League of Nations, in agreement with the Governments concerned, may be able to transform these plans into great realities. A reference to these plans will be made later.

1. The campaign against infant mortality is of special importance to Latin-American countries. If one considers the great area of certain of these countries and their sparse population, the importance of the loss in human capital caused by high infant mortality rates will be appreciated. How much greater the prosperity of these nations might be if the population increased more rapidly and thus facilitated the growth of its industries, agriculture and commerce.

On this continent, as elsewhere, it was primarily private enterprise which created numerous organisations for child welfare. These organisations have steadily become more efficient, and to-day they are trying to fill the role of public health and social institutions. Nevertheless, in spite of the modernisation of their programmes of work, they are still too widely scattered and their activities lack support and cohesion.

Moreover, they were not all designed for the handling of large problems : they have been engaged in dealing with immediate dangers of obvious urgency. These considerations, together with other similar ones, explain the enthusiasm with which the Latin-American experts responded to the invitation of the League of Nations and attended the Conference at Montevideo.

Delegates of Argentine, Brazil, Bolivia, Chile, Paraguay and Uruguay were thus enabled to make a detailed study of their national problems relating to child welfare, and, approving the procedure accepted by their European colleagues, they adopted plans for investigations which are to be carried out in 1928. The purpose of this study will be to determine with the greatest possible exactitude the main medical and social causes, both of still-births and of infant mortality. As in the case of the investigations in Europe, it was considered necessary to carry out these investigations in both urban and rural areas, comprising localities with high and low mortality rates in both groups. It is thus hoped to arrive at conclusions on which it will be possible to base, as rapidly and widely as possible, effective prophylactic measures against infant diseases.

In order to obtain results that can be compared as between the different countries, it is obvious that uniformity of method is essential. It was therefore decided to propose that the member of the Health Section of the Secretariat of the League of Nations who is responsible for co-ordinating the investigations in Europe should undertake a similar work in the Latin-American countries.

It was also decided to convene the Latin-American experts during the first half of the year 1928 for an exchange of views on the results that will by then have been obtained and on the possibility of improving the method of enquiry.

It is interesting to recall in this connection that the Montevideo meeting was the first conference held by the League of Nations in a Latin-American country, and it is gratifying to note that the inauguration of the work of this Conference was made the occasion of an official ceremony in the presence of His Excellency the President of the Republic and presided over by the Minister of Industry. These circumstances show the importance which the Government of Uruguay attributed to this Conference.

2. Thanks to the initiative of the Health Committee of the League of Nations, the lot of the Latin-American child will certainly be much improved when each country has determined, with a view to remedying them, the main social-medical causes of infant mortality in its urban centres and rural districts. But the practical application of these measures and their success are directly dependent on the quality and the degree of training of the staff which will be entrusted with their execution and supervision. Mindful no doubt of such considerations as these, Professor Araoz Alfaro, member of the League Health Committee, has suggested, with the support of the Argentine Government, the establishment at Buenos Ayres, under the auspices of the League of Nations, of an international health centre for infant welfare. It would provide training facilities for a staff capable of dealing in an efficient fashion with child welfare in Latin-American countries.

This school would also co-ordinate the work of the various magnificent institutions which have been established in the Argentine capital by the State and the municipality with the work of private organisations and of the very remarkable Welfare Society. It would be placed under the presidency of the Argentine member of the Health Committee, who could submit to the Health Committee an annual report dealing with the activity of the school during the past year and the programme of studies for the coming year. But since education is only one stage in developing the practical work to be done, the Argentine Federal Health Authorities desire at the same time to establish dispensaries and welfare centres in those provinces where infant mortality remains relatively high and which receive immigrants from overseas. For this purpose the Federal Authorities are counting on the support of the provincial governments and municipalities.

It would also be possible to profit by the so-called system of interchanges of public health personnel, which is well known to the Assembly and the usefulness of which has been described in remarkable fashion by the honourable delegate from British India, to give the Argentine undertaking an international character. If scholarships could be granted to Latin-American doctors of countries other than the Argentine to enable them to follow the course of higher education which would be given at the centre in question, and also to pass a period of training in the treatment and prevention stations, and if experts from other countries could be invited by the Health Committee to give courses of lectures or to study there, a real centre for international technical collaboration might be established.

Perhaps one day some other Latin-American country may offer to create a centre complementary to that proposed by the Argentine authorities, for it is important that the public health experts who deal with infant welfare should be effectively supported not only by visiting nurses but also by social workers. If in the future a social welfare school could be of service in a Latin-American capital, and if this could be in Chile, the delegation of this country would be very pleased to ensure, by means of the school established at Santiago, fruitful collaboration with the Health Committee of the League.

3. The work of the Health Committee could be still further turned to advantage by the Latin-American countries if the League of Nations could take under its auspices the higher education in health, which was organised two years ago at Rio de Janeiro, and so endow it with the same international character as the courses organised this year by the Health Committee in Paris and London. This school could be based on the magnificent Research Institute founded by Oswaldo Cruz at Rio de Janeiro and directed with so much scientific ability by Professor Carlos Chagas, member of the Health Committee of the League of Nations.

The training of public health experts and of a health staff is essential to the economic development of Latin-American countries. Public health is not only the technical application of modern experience in preventive medicine : it is also the improvement of the conditions of economic life. Public health officers are pioneers who ensure the exploitation of wealth and enable people to enjoy the natural resources with which they are richly endowed.

The Assembly will thus readily understand the capital importance of giving this national army of " scouts " an adequate technical training — a training which can only be provided by institutions of recognised technical standing. Numerous public health specialists from Latin America have already profited by the interchange system of the League, and approximately 42 of them, belonging to fifteen different countries, holding League of Nations scholarships, have been able to study in North America and in various European countries.

The Brazilian proposal would enable other Latin-American countries to benefit by the excellent training given by the Oswaldo Cruz Institute and the experience it has already acquired. It will probably not be possible for the Health Committee to invite many lecturers to assist in the instruction given there, as it has been able to do in the case of the health courses in Paris and London, but one or two foreign technical experts might be appointed to co-operate for a few months in Rio with the Latin-American staff, and here again, as in the case of the Argentine centre, scholarships might enable Latin-American doctors to derive a large amount of benefit from these courses.

4. The Assembly will also be interested to learn that Professor Carlos Chagas and Dr. Clementino Fraga, Director of the Brazilian Federal Public Health Service, have suggested that an International Leprosy Research Centre should be established under the auspices of the League.

The problem of leprosy has engaged the attention of the Health Committee for some years, and the efforts made in Northern European countries to combat this disease have been crowned with remarkable success. The road which several Eastern and many Latin-American countries have still to travel is an arduous one. The task obviously devolves upon the national authorities, but investigations into the causes of the spread of the disease demand the assistance of all and real co-operation between scientists of all countries. This task affords an excellent opportunity for defining international action and the extent of national effort. If the Health Organisation is able to obtain the co-operation of the great scientists of other countries in the research work already undertaken in Latin-American countries, it will have made a real contribution to the solution of one of the most difficult problems which the health administrations of the countries are called upon to solve.

It is necessary to add that a Brazilian philanthropist — Dr. Guillermo Guinle — is prepared to contribute a sum of 50,000 Swiss francs a year towards the creation of a leprosy research centre. Moreover, it should not be forgotten that the Federal Government of Brazil would take a deep interest in the new development of public health under the auspices of the League of Nations.

5. The comparative researches into the sero-diagnosis of syphilis in Europe, initiated by the Health Committee, and the practical results already obtained, might be extended to Latin-American countries. The Institute of Hygiene of the State of São Paulo is willing to make this possible and has already earmarked in its budget a sum sufficient to provide the salary for one year of a serologist to be appointed by the Health Committee of the League of Nations. As soon as these investigations have been begun in Brazil, they might be extended to other Latin-American countries; a step forward would thus be taken in the campaign against this social scourge.

6. Thanks to the League's mission, co-operation between the sanitary administration of Uruguay and the Mixed Commission of the Health Committee now studying health insurance in Europe has been assured. The National Council of the Uruguayan Ministry, in agreement with the Ministry of Industry, has decided to accept this co-operation in principle. The President of the National Council of Hygiene of Uruguay is prepared to visit Europe in order to follow more closely the work of the Mixed Commission and to introduce into his country all the necessary elements for the working of the new system of health insurance.

7. The Mission of the Health Committee arrived in Latin America accompanied by Professor Saiki, Director of the Imperial Institute for Research on Nutrition in Japan. Professor Saiki was the first of those who participated in the exchange of professors organised by the League of Nations to visit Latin America. The important science of nutrition, which Professor Saiki has made his own — a science which deals with the problem of nutrition in its physiological, hygienic and economic aspects — was the subject of numerous remarkable lectures given by him in various cities of the Argentine, Brazil, Chile and Uruguay. The Chilian Government and the health authorities of that country, recognising the practical and social importance of the science of nutrition, have arranged to engage for the period of two years a Japanese expert from the Imperial Institute of Tokyo, of which Professor Saiki is the head, for the purpose of organising similar services in the Central Health Department in Chile.

* * *

The Assembly will doubtless agree that the most interesting examples given of practical co-operation of the League of Nations with Latin-American countries call for technical investigation into the possibilities of realisation. The investigation of those various schemes should be entrusted to the Health Committee, and the Assembly will perhaps agree to request the Council to place the matter in the hands of the Health Committee as soon as possible.

After arranging for the technical investigation, it is still necessary to consider the general question as to whether the various possibilities of co-operation which have been examined represent a suitable method for extending the technical work of the League of Nations in Latin-American countries. The essential problem for these countries is their development, for which healthy population and measures to safeguard the life of every new-born child are essential. The Assembly has thus an opportunity of giving clear proof of the desire of the League of Nations to co-operate in this work of fundamental importance, by facilitating the realisation of the schemes just placed before it.

It is sometimes said that the influence of the League of Nations is in inverse ratio to the distance which separates the States from Geneva. Thanks to the various suggestions brought back by the Mission of the Health Committee in Latin America, the Assembly now has an opportunity to create a living image of the League of Nations in the very heart of Latin-American countries and to establish tangible and definite bonds with the League and its Health Committee.

* * *

In conclusion, I have the honour, on behalf of the Second Committee, to propose the following resolution :

" The Assembly :

" (1) Having taken note of the report of the President of the Health Committee on the possibilities of technical co-operation with public health and medical authorities in Latin-American countries, and also of the report on the work of the Conference of Health Experts on Infant Welfare held at Montevideo ;

" (2) Notes with satisfaction that the activities of the Health Organisation of the League of Nations have extended to several countries of Latin America and that fruitful co-operation may be anticipated as the result of the Health Committee's mission ;

" (3) Welcomes the practical suggestions for continued co-operation which have been made by the health authorities and experts of Argentine, Brazil and Uruguay ;

" (4) Considers that the realisation of these suggestions would result in creating links between the League's health work and activities of national health administrations in these countries, and would represent a good method of developing the work of the League's technical organisations in Latin America ;

" (5) Requests the Council, after having obtained the Health Committee's advice on these different suggestions for co-operation with Latin-American countries to consider how they may be put into practice. "

C.504.1927.III.

**ANNEX 142b.**

## RESULTS OF THE MISSION CARRIED OUT IN CERTAIN LATIN-AMERICAN COUNTRIES BY THE PRESIDENT OF THE HEALTH COMMITTEE: ACTION TO BE TAKEN ON THE RESOLUTION ADOPTED BY THE EIGHTH ORDINARY SESSION OF THE ASSEMBLY ON SEPTEMBER 20TH, 1927.

*Report by M. Adatci, adopted by the Council of the League on September 27th, 1927.*

The Council will recall that, on September 3rd, 1927, during its forty-sixth session, it decided to forward to the Assembly the report presented to us by the President of the Health Committee on the results of his mission in Latin America.

The Assembly, having considered that report, adopted the following resolution:

" The Assembly:

" (1) Having taken note of the report of the President of the Health Committee on the possibilities of technical co-operation with public health and medical authorities in Latin-American countries, and also of the report on the work of the Conference of Health Experts on Infant Welfare held at Montevideo;

" (2) Notes with satisfaction that the activities of the Health Organisation of the League of Nations have extended to several countries of Latin America and that fruitful co-operation may be anticipated as the result of the Health Committee's mission;

" (3) Welcomes the practical suggestions for continued co-operation which have been made by the health authorities and experts of the Argentine, Brazil and Uruguay;

" (4) Considers that the realisation of these suggestions would result in creating links between the health work of the League and the activities of national health administrations in these countries, and would represent a good method of developing the work of the League's technical organisations in Latin America;

" (5) Requests the Council, after having obtained the Health Committee's advice on these different suggestions for co-operation with Latin-American countries, to consider how they may be put into practice. "

My colleagues will doubtless desire, in conformity with the above resolution, to refer the various suggestions that have been made for co-operation with Latin-American countries to the Health Committee for advice as to how they may be put into practice.

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C.H./Malaria/98

**ANNEX 143.**

## WORK OF THE MALARIA COMMISSION.

*Report by Dr. A. Lutrario, Chairman of the Commission.*

[*Translation.*]

Gentlemen — I desire first of all to draw your attention to the general report of the Malaria Commission, which constitutes an essential source of information regarding our work during the last three years.

In April I submitted it to you in proof form; to-day you have it in its final form. Its small size and modest appearance are in striking contrast with the importance and wealth of its contents. It is divided into three parts, but it is the first which chiefly claims attention. It lays down in tabular form rules for the main methods and guiding principles of the anti-malaria campaign which the Commission considers appropriate.

Our opinions lay no claim to infallibility or to absolute originality, but they have the merit of being founded not on pure doctrine or the spirit of a particular school but on the actual experience of " real " malaria obtained in the countries we have visited. These principles are stated in a clear and simple form without pretension and without ambiguity. Our advice to Governments aims at impressing upon them the necessity of their work being always measured by practical standards and guided by a spirit of conciliation, not excluding or accepting to the exclusion of others the theories of any particular school, in order that it may achieve genuine and, if possible, permanent results.

And now I should like to emphasise a few passages and a few points which show the character of the whole report.

The first point relates to the anti-malaria programme in general. In Europe, in the present state of science, the sole purpose of the campaign against malaria, as far as the Commission is concerned, is to reduce the incidence and severity of the disease. Measures designed to accomplish more than that (particularly measures aiming at eradication) are not a wise proposition and can only be justified in very exceptional circumstances. This conclusion is a very true one and based on wide experience. The Commission had occasion to enter into relations with a number of States which had suffered severely after the war and had undertaken an energetic campaign against malaria. The disease yielded to the measures which were taken, but reappeared with added virulence as soon as these measures were somewhat relaxed. This is a very serious result, which brings in its train disillusion and discouragement.

Italy provides a striking example of what can be achieved by means of anti-malarial measures. The country has done a considerable amount of work on the question; curative and preventive

treatment, mechnical protection, major and minor "bonifications", medical assistance (10,500 *medici condotti*), powerful organisation of health services. Let us now consider the results, endeavouring to examine the problem from the different points of view of incidence, severity and prevalence of the disease. Let us compare the mortality from malaria with the severity and incidence of the disease. Following the mortality curve over a period of thirty-eight years, we find the death rate continually falling, until it reaches very low figures. The decrease in malaria mortality has reached nearly 90 per cent.

Much has therefore been gained as regards the severity of the disease and, up to a certain point, as regards its incidence also, for there is a certain relation between the mortality and incidence of the disease.

But the same improvement is not found if we examine its prevalence. As a result of the Bertani enquiry, two provinces were found to be unaffected. After the enquiry of 1888, a further four communes (Cuneo, Florence, Genoa and Como) were found to be unaffected. In 1906, six other communes (Ancona, Arezzo, Luca, Parma, Pesaro, Piacenza) were found to be free. In 1913, there were two more (Forli and Massa-Carrara) and, in 1923, another four (Belluno, Brescia, Modena and Turin). This is little enough if we consider the efforts made during so long a period. These provinces were among the least affected and the malarial zones were of small extent and few in number. This is little enough, I repeat, compared to the 3,398 zones covering 8½ million hectares in the whole country.

In the ensuing passages the document gives a detailed criticism of the different anti-malarial systems and concludes that, malaria being an essentially local problem, there can be no standard system which can be applied everywhere. Each locality must be its own physician.

From this it may also be concluded that, before applying or adapting a method, it is necessary to be acquainted with the local conditions. These must therefore be studied from every aspect and by every means, not only before the application of a method but also after, so as to discover what modifications may be necessary.

Another point relates to the number of methods applied. The Commission recommends a single method—or at most two. They should never all be utilised simultaneously; as the old adage says: *Unum facere et alterum non omittere.*

But it is not enough to do "something". The method must be followed up until the greatest possible degree of perfection has been achieved. The maximum of efficacy must be reached, otherwise both time and money are wasted.

Nevertheless, in the variety of methods which may be adapted to local conditions there are three factors which must never be absent and which apply everywhere as a kind of mathematical constant, or, if you prefer it, a kind of minimum common denominator of the anti-malaria campaign.

These three factors are:

(1) Destruction of the parasite in man;
(2) Destruction of the adult carrier in houses;
(3) Trained doctors.

The first aim is achieved by a thorough treatment with the help of quinine. In the Commission's opinion it is sufficient to administer 1 to 1.5 grammes of quinine, on the basis of the basic hydrochloride which contains 81.72 per cent of the alkaloid.

As regards the second point, the report indicates the steps which must be taken to capture and destroy adult mosquitoes in houses. But to achieve this aim with real success, housewives, members of the family in general and children must be inspired with a horror of mosquitoes similar to that felt for lice and bugs.

The factor referred to in the third point, *i.e.*, that of trained doctors, is the essential of any campaign against malaria. In its tours in Europe, the Commission has seen the enormous difference existing between two neighbouring localities, one possessing a trained doctor and the other having none. This difference may be so marked that in the former locality the spleen and parasite indexes—as proofs of the incidence and endemicity of malaria—may be negative, while in the other locality having no trained doctor these indexes are strongly positive.

* * *

The Commission in its investigations always bore in mind the principle of economising expenditure. Methods had to be suggested which were most suitable to the various countries in which the choice of measures was restricted by financial considerations. As regards research, which must guide and accompany the application of prophylactic measures, the Commission recommends the creation of a permanent central organisation continuously occupied with the subject, and in close touch both with similar organisations in other countries and with the health stations of its own country.

To avoid waste of effort, the Commission thinks it would be advisable to draw up a limited list of the points which should be investigated, and which might include the following:

(*a*) The number of cases and character of the disease, month by month and year by year;
(*b*) Result of each visit to a house, blood-films being taken and anophelines collected in each house;
(*c*) Numerical prevalence and infection rate of anopheles in houses;
(*d*) Abundance of larvæ in breeding places in the neighbourhood of houses.

* * *

In a statement which must necessarily be synthetic, it is not possible for me to touch upon all the points in the report. It is enough for me to have given you an idea of the main conception, which has been based on the practical view of the problem gained by the Commission in the course of its travels.

The report has been a great success and has been much appreciated. I had the pleasure of commenting on it at a lecture which I delivered to the Superior School of Malariology at Rome.

The Commission realised the responsibility laid upon it and performed its task in the most willing and conscientious spirit.

I venture to hope that the Commission's work, so admirably described by our Rapporteur, Colonel James, will give you satisfaction and will deserve the Committee's approval.

I should now like to deal briefly with the different activities of the Commission and of some of its members since the last sessions of this year.

I shall begin with the tour of investigation in the United States, which proved of great interest and value.

The study tour in the United States made by Colonel S. P. James and Professor Swellengrebel, members of the Malaria Commission, was undertaken with a view to gaining an idea of the results of the anti-malarial campaign in the Southern States. This campaign was of particular interest to the Commission owing to the fact that it appeared to involve only trifling expenditure. If such was the case, it was clearly the most suitable method to adopt in certain countries of Europe.

The Rapporteurs were obliged to come to the conclusion, however, that the application of this method to European districts would not be advisable, since conditions in the districts which they visited were too different from those of southern Europe, particularly as regards the prevalence of the disease, the economic conditions of the population and the functions assigned by public opinion to the public health departments. It should be added that the habits of the anopheles which transmit malaria in the United States seem to differ materially from those of Europe.

The study of the organisation of rural hygiene as carried out by the " county health unit " system gave them great satisfaction as achieving a complete rural " salubrity " and providing measures directed against every disease, without restricting its campaign to any one of them, however important. They realised that this system contained the guiding principles that should be adopted by all countries which have still to organise their medical relief and rural hygiene.

Altogether, this tour may be regarded as having been very instructive and full of suggestions for the future.

The report, which is really remarkable, contains most interesting details regarding the attitude of the population to malaria, a disease which in the United States is not serious and is not a source of anxiety.

* * *

As regards experimental malaria, Colonel James has communicated to the Malaria Commission the result of his later studies on the subject.

1. From an examination of the results of complete infection (up to the appearance of sporozoites) of anopheles in each separate month over a period of nearly four years, it is found that, from August to October, the percentage of *successful* infections amounts to 40 to 60 per cent; from November to March this percentage falls to about 20 per cent, while during the summer there are only *a small number of anopheles* which become completely infected owing to the high mortality resulting from sexual activity (maturation of eggs), which reaches its maximum during these months. The anopheles therefore have little chance of transmitting malaria during the period of intense sexual activity.

2. From a study of the results of infecting paralytics by means of mosquito-bites, it is found that bites during the winter only give the disease from one to three months later (prolonged incubation). Absolute immunity from infection by a strain of *Plasmodium vivax* was demonstrated, but this immunity does not protect against another strain of the same species. It was found that a patient bitten by infected mosquitoes to whom quinine was administered during the whole period of incubation was not thereby protected against the disease. A series of experiments led Colonel James to the conclusion that quinine did not exercise its effect by killing the parasites but by stimulating the physiological activity of the organism. Provided that the malaria parasite has already caused a few attacks of fever, a small dose is sufficient to bring about a diminution, but this dose must be repeated at intervals of six to eight days to prevent recurrences of fever and to effect a complete cure.

As regards relapses, it was found useless to give prolonged treatment, since relapses occurred just as much after such a treatment as after a treatment lasting only five to eight days.

## Experimental Malarial Infection of Anopheles.

Professor Ottolenghi has for some months been carrying on researches regarding the experimental malarial infection of anopheles, availing himself of the material required for the malaria treatment of certain mental diseases. He has already been able to make a number of remarkable observations, although the work is only in its early stages. Among these observations there are a number which deserve mention.

Professor Ottolenghi discovered the very interesting fact that anopheles coming from places practically exempt from malaria take the infection from the patients as easily as anopheles from malarial districts.

Moreover, it appears from these investigations that the *Anopheles Elutus*, which is found in certain districts of Italy side by side with the *maculipennis*, can be easily infected. This fact, taken in conjunction with the data obtained from epidemiological research, shows that in Italy the *elutus* plays a certain part in the propagation of malaria. All these experiments were carried out with virus of benign tertiary, but researches regarding tropica are now being made.

* * *

As regards the problem of the relations between major "bonifications" and malaria, a problem in which the Commission has always taken a keen interest, I have much pleasure in stating that a special station has recently been established at Ferrara, in Italy, to make the investigations in question.

This station, which is directed by Professor Ottolenghi, constitutes a section of the *Stazione sperimentale per la Lotta antimalarica* founded at Rome by the General Directorate of Public Health, in conjunction with the International Health Division of the Rockefeller Foundation. Its work, to which reference has already been made several times here, is proceeding according to plan, and the first annual report has just been published.

* * *

Professor Pittaluga has drawn up a statement of the steps taken to complete the experiments conducted in the Ebro Delta with regard to the factors in the domestication of anopheles, also considered in relation to the meteorological data which have been carefully collected during the past eighteen months.

The wide scope of this investigation, the quantity of observations made, and the necessity of supplementing them during at least another winter and summer season (conditions recognised by the Commission as essential if really valuable conclusions are to be drawn) compel Professor Pittaluga, in agreement with his colleagues, Professor Cantacuzène and Professor Ottolenghi, to postpone their final report until next year. But exchanges of views are regarded as necessary to *establish uniform technical methods* in regard to certain researches.

Professor Pittaluga has also submitted a summary of the report on an experiment in preventive quinine treatment carried out in Spain during three consecutive years (1925-27) on a group of workmen engaged on the dam works of Guadalmellato (Cordova), consisting on an average of 300 to 400 persons, subjected to this prophylactic treatment. Its comparative effectiveness from the point of view of individual prevention is demonstrated by the following figures: 7.5 per cent infected among those given preventive treatment; 42 per cent infected among the neighbouring population.

But certain facts (spleen index; index of infection of anopheles in the neighbourhood at the beginning of the third year) go to show that the effectiveness of this method as an epidemiological measure is extremely small.

* * *

With regard to kinetum and plasmochine used in prophylaxis, Professor Pittaluga has submitted, on behalf of M. de Buen, a preliminary report on their use in prophylactic treatment in the village of Talayuela. The latter was divided into two parts for purposes of experiment.

This investigation, which is being personally carried on by M. de Buen, was undertaken as a result of observations made at the hospital of Navalmoral de la Mata on the action of plasmochine.

Twenty patients (tropica) were studied. Only slight cyanosis was observed in three cases, and a premature disappearance of the semilunar gametocytes (2.5 times as fast as with quinine) from the blood of the germ-carriers.

At Talayuela, forty cases were treated with plasmochine compound (plasmochine plus quinine). Kinetum administered in equal doses produces the same effects as quinine.

* * *

Professor Cantacuzène, whose absence I much regret, has sent me a very interesting report, of which I will give you a summary. This report deals first with the malaria experiments made in the Danube Delta (experiments similar to those of Professor Pittaluga and Professor Ottolenghi).

After recalling the extreme rarity of malaria in the delta (spleen index, 0; parasite index, 0) — which is perhaps due to the fact that anopheles hardly ever bite human beings — he informs us that this year the campaign conducted by Professor Zotta is not yet finished. The unusual dryness has greatly reduced the flooded surface. Certain species of mosquitoes have disappeared *(Aedes dorsalis)*; others have become much scarcer *(taeniorhynchus, mysorhynchus)*. The anopheles remained numerous, however, but took up their abode in the stables without biting human beings. This year the rarity of malaria has been confirmed.

Professor Cantacuzène considers it necessary to continue the experiments and to hold a meeting with his two colleagues, Professor Ottolenghi and Professor Pittaluga, with a view to settling certain details of technique, especially as regards the identification of the animal whose blood is found in the mosquitoes' stomachs.

The second very interesting point which he makes in his report refers to immunity.

He has found in malario-therapeutics applied to the treatment of general paralysis a considerable proportion of refractory cases, which, after receiving one or more injections of malarial blood, displayed no clinical symptoms of malaria (33.6 per cent), although the hæmatozoa were found in their blood. Others again received the experimental injection of blood without the least modification in their own blood.

* * *

Among the important problems examined by the Malaria Commission is that of the Bulgarian refugees, on which I will say a few words.

In April last, Professor N. H. Swellengrebel, member of the Commission, visited Bulgaria, at the invitation of the Medical Director of the Health Section of the League of Nations, to discuss with the League's Commissioner for the Settlement of Bulgarian Refugees the measures to be taken to organise the campaign against malaria amongst these refugees, most of whom are settled in highly malarial districts, often without any medical assistance.

After an enquiry on the spot, the province of Burgas, which has most refugees in its territory, was considered to be in the most pressing need of relief. There could be no question for the moment of initiating a systematic campaign, which always requires a certain period of preparation, and the first thing to be done was to provide sufferers from malaria with treatment, so as to allow them to pursue their agricultural occupations during the summer, a matter of great importance to the operation of the refugee settlement scheme.

While being organised on this basis, however, the anti-malarial service aimed at the same time at conducting a more radical but more limited campaign, by forming a branch to deal with the destruction of larvæ.

This service began its work in June in the province of Burgas, and at present consists of twenty-three health officers, including fourteen Russian doctors and nine medical assistants, engaged chiefly in the treatment of malaria in seventy-seven villages divided into twenty-one sectors (one health officer for each sector), two of them being assigned to the province of Petritch.

These health officers also apply measures for the destruction of larvæ, under the direction of a section specially trained to do this work, and consisting of two experts from the Burgas Malaria Institute (with their assistants). They constitute at the same time *the General Directorate of the anti-malarial service.*

At the invitation of the Medical Director, Professor Swellengrebel has just revisited this district. He found remarkable zeal and devotion to duty among the personnel of this service, whose work has been crowned with success, inasmuch as the refugee population is satisfied and appreciates the efforts made on its behalf, which have put it in a condition to plough the fields during the summer. The results are sufficiently encouraging for the work to be continued and even to be intensified so as to make it still more effective during the next malaria season.

A serious problem remains to be solved, that of malaria in the province of Petritch, where, next to the province of Burgas, there are most refugees.

Two health officers of the anti-malarial service have already been sent to this province to meet the most pressing needs.

The Rockefeller Foundation has also sent to the spot a skilled technician, Dr. Collins, and, in agreement with the Commissioner of the League of Nations and the health authorities of the country, it has declared its willingness in principle to assist in the organisation of anti-malaria measures considered as part of the general programme of rural hygiene. Its assistance will no doubt be of incalculable value to this district also.

* * *

Another very important subject dealt with by the Malaria Commission is the teaching of malariology.

The Commission laid great stress on the necessity of perfecting this teaching in order to have doctors who are properly trained and equal to their work. This constitutes the foundation stone without which no anti-malarial work can be satisfactory.

Courses have been instituted at three centres: in London, at the School of Hygiene and Tropical Medicine, under the direction of Dr. Balfour; in Hamburg, at the Institute of Naval and Tropical Medicine, under the direction of Professor Nocht; in Paris, at the Faculty of Medicine, under the direction of Professor Brumpt.

The London courses unfortunately could not be held this year owing to the lack of English-speaking candidates.

The other two centres attracted sixty-three students, including twenty-eight holders of scholarships (twelve from the Health Organisation, eleven from the Rockefeller Foundation and five sent by their respective administrations) and thirty-five private persons.

Different nationalities of Europe, Asia and America were represented.

The courses were supplemented by periods of practical training lasting two months, which took place in Italy, Spain and the Kingdom of the Serbs, Croats and Slovenes.

These courses, which were held in 1926 for the first time, were a great success, and various suggestions were made by Professor Brumpt, Professor Nocht, Dr. Stampar, Dr. Missiroli, Professor de Buen, and Dr. Audibert, with a view to improving them still further. These suggestions will as far as possible be taken into account in organising the courses for 1928.

The teaching of malariology has been enriched by a new institution created under the direction of the Athenæum of Rome and under the auspices of the Government; I refer to the Superior School of Malariology at Rome.

Created on May 8th, 1927, by a decree, it was inaugurated on June 16th, and there were immediately eighty-eight entries, eighteen of which were foreigners.

This school comprises two sections: a medical section and a technical and economic section. It constitutes an immense step forward in the teaching of malariology, since not only doctors but engineers, agriculturists and economists are admitted to the courses and will thus be able to assist in inculcating anti-malarial measures.

Entries are accepted irrespective of nationality.

The theoretical courses are supplemented by practical work, excursions and study tours.

The Commission proposes a resolution in which it recommends the continuation of the courses in 1928, and requests you to invite the Medical Director to get into touch with the Directorate of the Superior School of Malariology at Rome with a view to negotiations allowing the Health Organisation to utilise this school in the interests of the campaign against malaria.

* * *

Kinetum and the secondary alkaloids have also been the object of special studies.

At its session of April last in Paris, the Malaria Commission, at the request of the Sub-Commission for the Study of Secondary Alkaloids, adopted the following decision:

" I. All experimental and documentary material to be collected relating to the two following questions:

" (*a*) Method of preparation, cost of production, quantities available of the different kinds of residuary products of the cinchona bark whose composition is nearest to kinetum and which may have similar properties;

" (*b*) Methods of practical control of the preparation or preparations of the type described above which are the most worthy of attention both from the point of view of the cost of production and from that of their therapeutical effectiveness.

" II. The Commission further points out that it would be well to apply in this connection to the quinine factory at Turin, which is a Government factory.

" Recommendation: Collect in a single booklet all the documents hitherto assembled on the therapeutical action of the secondary alkaloids of cinchona.

" III. The Malaria Commission, considering the excellent results hitherto obtained by the use of kinetum, recommends that experimental work should be extended to kinetum and the similar products furnished by the Health Section.

" IV. The Commission desires the Secretariat to continue to keep it informed of the results of its enquiries with regard to cupreine and the cultivation of the *Remijia pedonculata*.

" Recommendation: The Secretariat is requested to collect all the index cards of experiments made with kinetum and the secondary alkaloids, applying for this purpose to all research workers having made experiments with these products. "

In pursuance of these resolutions, the Health Section applied to various administrations and experts and collected an important series of documents.

It has received:

Three reports from Professor Martinotti on kinetum;
Two reports from Professor Ciuca;
One report from Professor Cantacuzène;
One report from Professor Ascoli;
One report from Professor Ardin Delteil and Professor René Azonlay;
An interesting communication from Professor Pittaluga.

The eighty-eight treatment cards sent from Fiumicino Grosseto and Bitolj bring the *number of our observations on the action of these products up to 838*, and show a variety of conditions resulting from experiments with different doses and durations of treatment.

It appears from all these researches and from those communicated by Professor Pittaluga that the *efficacy of Amsterdam kinetum is at least equal to that of quinine* and that it is unnecessary to exceed a daily dose of 1 gramme for adults. The toxity of this product is not greater than that of quinine.

On the other hand, cinchonine is less effective than quinine and kinetum. The observations of Professor Delteil and Professor Azonlay, submitted by M. Raynaud, fully confirm these data. The results given in Professor Ciuca's reports (C.H/Malaria/84 and Annex) and the valuable material provided by Dr. Martinotti (C.H/Malaria/85 and 87, Fasciculus 1 and Fasciculus 2 of the Society for the Study of Malaria) on the composition of the different varieties of kinetum indicate the necessity of continuing investigations of such varieties as may prove efficacious, harmless and cheap. This proposal is mainly concerned with the utilisation of kinetum extracted from bark with a low quinine content, without separation of amorphous alkaloids and without conversion of the alkaloids into more or less soluble salts.

The Commission is also considering the possibility of making prophylactic experiments.

Professor Ascoli's observations confirm his earlier conclusions: quinidina is slightly more active than quinine and quinine than cinchonine.

He made certain experiments with plasmochine, a product with a quinoidine basis, using doses of 6 to 8 centigrammes, which caused the cessation of the fever and the disappearance of the parasites. Relapses were less severe. Plasmochine proved more effective in the treatment of benign fever than in that of malignant fever.

* * *

I now propose to deal with the question of the Darling Prize.

The Committee will remember that, during its sixth session, in April 1926, it approved draft regulations concerning the award of an S. T. Darling Prize to the author of an original work on malaria.

The subscriptions amount to approximately 10,000 Swiss francs.

The prize will be awarded for the first time in 1930. It will consist of a bronze medal and a sum of about 1,000 Swiss francs.

The Medical Director has consulted a lawyer with a view to drawing up draft statutes for the constitution of the Darling Foundation.

The draft has been submitted to the Malaria Commission, which has approved it, apart from a few slight modifications, which are not final, as the text must still be submitted to legal experts.

The draft statutes are annexed to the present report with the documents relating thereto.

This draft provides that the Malaria Commission will be called upon to examine the work and make proposals to the Darling Prize Fund Committee, consisting of the President of the Health Committee, the three Vice-Presidents for the time being of the Health Committee, and the Chairman for the time being of the Malaria Commission. The Medical Director for the time being will act as secretary of the Committee.

* * *

You have heard what are the different points which distinguish American from European methods. The former are directed in particular against the mosquito, while the latter are concentrated on the patient. It would clearly be well to co-ordinate the two tendencies, utilising as far as possible the experience acquired by the two systems.

The Malaria Commission therefore proposes that you should attach to it, as Corresponding Members, two American doctors:

Dr. A. Barber, Greenwood, Mississippi, of the United States Public Health Service; and
Dr. F. Boyd, Edenton, North Carolina, of the International Health Board of the Rockefeller Foundation.

As regards Italy, I propose for your consideration a third member, in the person of

Dr. Missiroli, Director of the Stazione sperimentale per la lottà antimalarica.

He is a provincial doctor and has been working with me for a long time past, so that I have had the opportunity of appreciating his competence and devotion.

* * *

The programme of work for 1928 is determined by the following five resolutions:

" 1. The Malaria Commission, having considered in all its bearings the very interesting report of Colonel James and Professor Swellengrebel on their study tour in the United States, considers that this report, which contributes fresh data to those which form the basis of the general report of the Malaria Commission in Europe, raises questions which call for detailed consideration at a future general meeting of the Commission, to which will be invited all the Corresponding Members as well as the colleagues from the United States to be invited to participate as Corresponding Members of the Commission, to which office they have been recently appointed.

" The Commission requests the Health Committee to ask the Medical Director to take the necessary steps to convoke such a session and to obtain for the purpose of this meeting the observations of all Corresponding Members of the Commission, as well as of the authorities of the United States Federal Health Service and of the International Health Division of the Rockefeller Foundation.

" II. The Malaria Commission is in full agreement with the measures proposed by Professor Swellengrebel, who was charged with a special mission on behalf of the League of Nations Commissioner for the Settlement of Bulgarian Refugees, for the organisation of an effective campaign against malaria in the Burgas region, and it notes with satisfaction that these measures are already yielding results.

" The Malaria Commission also agrees with Professor Swellengrebel that the prevention of malaria in this region is only a part of the health problem of the refugees; that the disappearance of this disease is dependent on other factors, and consequently expresses the hope that the public health and medical services will be developed not only in the Burgas district but also in other districts inhabited by refugees, and, in particular, in the second area selected by the Commissioner of the Commission.

" The Malaria Commission appreciates greatly the collaboration that the International Health Division of the Rockefeller Foundation is, in principle, prepared to give to the extension of anti-malaria measures, considered as a part of a general public health programme, in the second district suggested by the Commissioner of the League of Nations for the Settlement of Bulgarian Refugees.

" The Malaria Commission directs the attention of the Health Committee particularly to the very great advantages offered by this opportunity of co-ordinating the work to be carried out in accordance with this programme with the work already being done in the Burgas district. For the purpose of such co-ordination, the Health Committee will probably wish to utilise the services of the Malaria Commission as well as the technical assistance of the Health Section.

" III. The Malaria Commission recommends that the researches undertaken by the Commission and by certain of its members should be continued, notably:

" (*a*) The problem of the Deltas, the study of which has been carried out during the last two years (Danube, Ebro, Po);
" (*b*) Certain laboratory problems:

Professor NOCHT: Experimental hæmoglobinuria.
Colonel JAMES: Researches on experimental malaria; the relationship of the habits of anopheles to their capacity for spreading malaria;
Professor OTTOLENGHI: Experimental infection of anopheles in relation to the epidemiology of malaria;
Professor SCHWELLENGREBEL: A study in Holland of the causes of anophelism without malaria; local demonstration of anti-larval measures.

" *Travelling.*

" The Malaria Commission notes with gratitude the invitation received from the Government of India, and adjourns the question until April 1928, when a definite programme will be presented to the Commission.

" IV. *Kinetum and Secondary Alkaloids.* — The results contained in the reports C.H./Malaria/84 and Annexes, C.H./Malaria/85 and 87, and in Fasciculus 1 (Kinetum) and Fasciculus 2 (Chemico-Therapy) of the Society for the Study of Malaria in Italy, presented to the Malaria Commission on the composition of different varieties of kinetum, indicate the necessity of continuing investigation of such varieties of kinetum as may prove to be efficacious, harmless and cheap. This proposal is mainly concerned with the utilisation of kinetum extracted from bark with a low quinine content without separation of amorphous alkaloids and without conversion of the alkaloids into more or less soluble salts.

" V. *Malaria Courses.* — The Commission expresses its appreciation to the directors of the malaria courses at Hamburg, London and Paris, and earnestly hopes that they will agree to continue these courses in 1928; recommends the Health Committee to request the Medical Director to get into touch with the authorities of the Superior School of Malariology at Rome, in order to organise, by means of this School, a course similar to those held during recent years in the above-mentioned centres; considers that it would be useful to direct the attention of the public health administrations to the fact that the Superior School of Malariology at Rome has organised a special course for engineers.

" The Commission recommends that the present duration of the malaria courses should continue, and that certain subjects (clinical aspects of malaria and sanitary engineering measures), which it is impossible to develop sufficiently during the courses, might be taken up at the beginning of the practical studies; emphasises the great advantage of obtaining from those in charge of the schools and of the practical studies a programme of the subjects treated and of the practical work undertaken sufficiently detailed to enable the public health administrations to select the school and the area for field studies best adapted for the participants from such administrations.

" The Commission suggests to the directors of the schools and of the practical studies the utility of organising 'seminars' during the courses and the practical studies. This method would, on the one hand, enable the participants to make intensive studies of special subjects and, on the other, would allow the directors of the theoretical and practical courses to advise the participants better in regard to their work, on account of the closer contact thus established. There would also be advantages in the participating of the personnel directing the practical studies for a certain time in the courses at Hamburg, London, Paris and Rome.

" The Commission recommends the Health Committee to request the Medical Director to get into touch with the directors of the schools and of the practical studies, in order that abstracts of the lectures in the schools and in the field in French, English and the language of the country concerned might be sent to all the participants several days before the commencement of the course. This practice would greatly facilitate the studies of those participants who do not possess a sufficient knowledge of the language of the country. "

Perhaps a sixth resolution should be adopted regarding the Darling Prize. This resolution might be worded as follows:

" The Health Committee, at the Malaria Commission's request, has noted the draft statutes of the Darling Prize. It adopts these statutes and requests the Medical Director to forward them to the Council for final approval. "

* * *

Before concluding, I should like to say a few words more.

While the different members of the Commission who have laboratories at their disposal have submitted to you original research work, I, as an administrator, have to my great regret been unable to do anything of the kind, having no laboratory.

To remedy to some extent this deficiency, it has occurred to me to do something of practical value to the Malaria Commission and to the Health Committee. My idea, therefore, was to prepare a card index of malaria.

This card index deals with the different aspects of the problem:

1. History of malaria.
2. Geographical districts (nosological geography of malaria).
3. Statistics and public relief in connection with malaria.
4. Anti-malarial legislation.
5. Ætiology:
   (*a*) Protozoology;
   (*b*) Entomology (anophelology);
   (*c*) Hæmatology — various investigations;
   (*d*) Social and predisposing causes in general.
6. Pathology and clinical treatment of malaria (different forms, types, etc.).
7. Pathological anatomy.
8. Diagnosis of malaria.
9. Therapeutics.
10. Prophylaxis: public and private; major and minor "bonifications"; destruction of winged insects.
11. Anti-malarial campaign.
12. Miscellaneous.

The material falls into three divisions:

(*a*) Social Division: History, geography, statistics and public relief, legislation;
(*b*) Medical division: Ætiology, pathology, clinical treatment, pathological anatomy, therapeutics;
(*c*) Campaign against malaria.

Each card summarises a note, monograph, report, etc. The Malaria Commission will often find familiar material in the summaries of its reports and its work.

Each card gives: the author; the date and place of publication; a few words of description; and the source.

I do not claim to have accomplished an original or important work, but only to have done something useful by placing at the disposal of those concerned a repertory enabling them to consult the literature of malaria and to obtain information.

If in doing this I have achieved the practical and useful, though modest, aim I have set before me, I shall be well rewarded for my labour.

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C. H. 632 (1).

ANNEX 144.

# REPORT OF THE MEDICAL DIRECTOR ON THE WORK OF THE HEALTH SECTION SINCE THE NINTH SESSION OF THE HEALTH COMMITTEE.

(February-October 1927.)

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CONTENTS.

*First Part.* — Current Activities of the Health Section.


| | Page |
|---|---|
| Chapter I. — Service of Epidemiological Intelligence and Public Health Statistics | 75 |
| Chapter II. — Establishment of Liaison between the various National Public Health Services | 79 |
| Chapter III. — Publications | 85 |


*Second Part.* — Technical Secretariat of Commissions and Conferences.


| | |
|---|---|
| Chapter I. — Malaria | 87 |
| Chapter II. — Standardisation of Biological and Serological Products | 87 |
| Chapter III. — Joint Commission of Experts on the Relations between Public Health Services and Health Insurance Organisations | 88 |
| Chapter IV. — Commission of Health Experts on Infant Welfare | 89 |
| Chapter V. — Meeting of the Commission of Expert Statisticians, March 1927 | 89 |
| Chapter VI. — Rabies Conference | 90 |
| Chapter VII. — Conference on Schools of Public Health at Budapest and Zagreb | 91 |
| Chapter VIII. — International Commission on Sleeping-Sickness | 92 |
| Appendices | 95 |

# First Part.

## CHAPTER I. — THE SERVICE OF EPIDEMIOLOGICAL INTELLIGENCE AND PUBLIC HEALTH STATISTICS.

### I. Geneva Bureau Office.

1. The *Weekly Record* has appeared regularly every Friday afternoon since April 1926; thirty-one numbers have been published since February 18th. It contains all information received by the Service in the course of the week regarding the incidence of plague, cholera, yellow fever, typhus and smallpox and, as occasion demands, other epidemiological information of special importance such as facts concerning the progress of the influenza epidemic last winter and the epidemic of relapsing fever in Anglo-Egyptian Sudan last April.

The *Record* was issued twice a week during the influenza epidemic: sixteen special influenza reports were published between January 11th and April 1st, 1927.

In March the health administrations of several countries in and outside Europe, especially interested, were requested to pronounce upon the usefulness and form of this report. Replies were received from Algeria, Australia, Belgium, Bulgaria, Denmark, Estonia, Finland, France, Greece, Latvia, Lithuania and Spain, the health administrations of which offered no suggestion for any modification. A note received from the German *Reichsgesundheitsamt* pointed out that the real significance of the information could only be appreciated by comparing the report with several previous issues, as well as with the latest *Monthly Report*, and suggested that data should be included referring to several preceding weeks, at any rate as far back as the period covered by the last *Monthly Report*. If, however, space did not permit of this being done, it was suggested that the total number of cases since the beginning of the year should be published for each disease.

An increase in the number of telegraphic reports has added to the utility of the weekly reports. The Public Health Administration of Greece notifies telegraphically the occurrence of cases of plague and typhus. The President of the Maritime, Sanitary and Quarantine Council of Egypt has kept the Service regularly informed regarding the health conditions prevailing among pilgrims during the Hedjaz pilgrimage, and we are being supplied with early information regarding the cholera outbreak in Iraq and along the Persian Gulf. Information regarding plague in Syria is also sent telegraphically, and cables regarding the plague situation in the Argentine are regularly received from the President of the National Health Department of the Argentine Republic. Up-to-date information concerning the progress of yellow fever in Senegal and in the French colonies of the Guinea coast is always available, thanks to the courtesy of the Medical Service of the French Colonial Ministry, which sends copies of all epidemiological telegrams received from French colonies. Information regarding each case of yellow fever in this area is received generally within three or four days of its occurrence.

2. The *Monthly Epidemiological Report*, which appears on the 15th of each month was considerably revised in June last. The information, which was formerly presented for each country separately, is now arranged by diseases, thus facilitating a rapid survey of the situation regarding each disease. Considerable economy of space has thus been effected: each number now contains an average of 40 pages as compared with nearly 70 pages in the past and this in spite of appreciable increase in the amount of information supplied. The reduction in size has the additional advantage of enabling the printing and publication to be completed by the 15th of the month, which was not unattended with difficulty in the past. Greater elasticity of the report is obtained by omitting in alternate months information regarding diseases in the non-epidemic season. The new arrangement further relieves the General Review of the report of much tabular matter, and it is now possible to deal at greater length with interesting aspects of the current epidemiological situation, particularly in regard to smallpox, enteric fever, influenza, syphilis and the natural movement of population. Graphical representation is also used on a more liberal scale.

The particular attention of the Committee is drawn to this new form of the *Monthly Epidemiological Report*, and its opinion and advice on the utility of this new development are invited.

3. The *Annual Epidemiological Report* has been revised on the same lines as the *Monthly Report*. This has necessitated (for the first issue) a considerable increase of clerical work and has unfortunately delayed its publication to October.

The Public Health Administrations have, as usual, kindly revised the data for the year. The data for French and British colonies were kindly revised by the French Colonial Office and by the Medical Intelligence Service of the British Ministry of Health, respectively.

4. *Broadcasting.* — The weekly Singapore message has, thanks to the kind intervention of the "Transocean" G.M.B.H. Company in Berlin, been broadcast from the Nauen station in Germany each Saturday since February 19th at 12.10 (Greenwich time), immediately after the time signal, on an 18,000-metre wave-length. The message is broadcast in the AA Code. The information is of course contained in the *Weekly Record*, which supplies health administrations in Europe with sufficiently prompt intelligence on the situation in the Far East. This arrangement places all sanitary administrations outside Europe on the same footing as regards the prompt receipt of the information. It is worthy of consideration whether the message in clear, as issued from several stations in the Far East, might not also be repeated by powerful European stations.

5. *Epidemiological Intelligence Conference.* — A small expert conference will be held at Geneva on October 25th to consider questions relating to the work of the Epidemiological Intelligence Service. This conference will be attended by Dr. Taliaferro CLARK, of the United States Public Health Service, Colonel S. P. JAMES, of the British Ministry of Health, Dr. Charles Leslie PARK, of the Australian Commonwealth Department of Health, and Major C. P. THOMSON, President of the Sanitary, Maritime and Quarantine Council of Egypt. All these officers have had very large experience in the collection and tabulation of epidemiological information.

At this conference will be considered: (1) The form of presentation of our periodical epidemiological publications and such suggestions as may be made to increase their utility; (2) Experience already acquired in wireless transmission of epidemiological data; (3) The AA Cable Code now in use by the Singapore Bureau. The manner in which this code can best be enlarged so as to make it serve the needs of countries outside the area of activity of the Eastern Bureau will be studied. The importance of having a code suitable for the exchange of epidemiological and other sanitary information between all Health Administrations of the world has been emphasised by the Director of the Australian Commonwealth Department of Health. A preliminary list of countries, ports and other localities, not at present included in the Code, has been prepared for the consideration of the Conference (Annex 144 A).

6. *Influenza Report.* — In accordance with the decision taken by the Committee at its February Session, letters were addressed to the Health Administrations of Europe and of the United States requesting them to communicate a report on the influenza epidemic of last winter in their respective countries, as soon as full information should be available. Reports have so far been received from Luxemburg, Norway, Roumania, Sweden and the United States. The material so far received is insufficient for a general report. Further letters have been sent to the Administrations which have not yet complied with the request asking for their co-operation.

7. *Public Health Statistics.* — The preparation of Statistical Handbooks which was entrusted to Professor Major GREENWOOD (with the assistance of Major P. G. EDGE) has been continued and the following volumes have appeared since last February:

Official Vital Statistics of the Republic of Czechoslovakia.
» » » » » French Republic.
» » » » » Kingdom of Hungary.

The Italian Handbook is in the press.

All these volumes have, according to custom, been submitted before publication for the approval of the national health administrations concerned.

The Statistical Handbook for Switzerland has been written by Dr. Marcel NEY, Director of the Federal Bureau of Statistics. A handbook for New Zealand, prepared by the Census and Statistical Bureau at Wellington, has been received and will be published shortly.

Professor GREENWOOD hopes to prepare during the first six months of 1928 further handbooks on Scotland, Ireland and Canada, as well as to send us for publication, jointly with Dr. ROESLE, a statistical handbook on Germany.

It is hoped that the handbook for the United States, on the preparation of which Mr. Edgar SYDENSTRICKER, has been engaged for some time past, will appear next year.

It is proposed to invite the competent authorities in Japan and Russia to prepare handbooks for their respective countries.

## II. EASTERN BUREAU OF SINGAPORE.

1. *Ports in communication with the Bureau.* — The epidemiological work continues to develop, and the number of ports about whose health conditions the Eastern Bureau receives weekly information is now 136. This figure is a little below the maximum attainable which was estimated, when the Bureau was created, at 150. Among the last ports whose collaboration has been secured may be mentioned Diego Suarez (Madagascar), Bahrein (Persian Gulf), Moulmein, Bassein (Burma), Canton, Tien-Tsin, Tsingtao, Wei-Hai-Wei (China), Takao (Formosa), Colon and Panama (Panama Canal Zone).

The Director of the Health Service of the Panama Canal Zone, in compliance with the request of the Eastern Bureau, has agreed to supply the Bureau with information concerning not only the two

ports mentioned above, but also the Canal Zone as a whole; this information has been received since the end of April. He has also undertaken to advise Singapore of the passage of any infected ship travelling towards Asia.

2. *Transmission by Wireless.* — In spite of this increase in the number of its correspondents, the Bureau has been able to reduce the cost of cables, thanks to arrangements that have been made with telegraph companies, and constantly improving wireless communications. The number of health administrations and of the health services which are able to pick up the wireless messages in code is constantly increasing. It has thus been possible to suppress the cables which have hitherto been sent to the health services of Bushire (Persian Gulf) and of Port Louis (Mauritius).

The Government of Madagascar having recently agreed to repeat the wireless bulletin from the wireless station of Antananarivo, it will be possible to suppress certain cables which the Bureau is now sending to Colonial Health Administrations on the East Coast of Africa. It is possible to foresee a day when the expenditure at present incurred by the despatch of cables will be practically suppressed, and that, thanks to the generosity of the different Governments which have kindly placed their wireless stations at the disposal of the Bureau.

In conformity with the decision taken by the Advisory Council at its last session, a résumé of the *Weekly Bulletin* in code is sent out in clear from three wireless stations (Malabar, Madras, Karachi). The Health Administration of Japan has recently informed the Eastern Bureau that it was considering the possibility of repeating the résumé in clear from a Japanese station for the benefit of coastwise traffic.

3. *Information concerning the Movement of Infected Ships.* — The practice of informing the next port of call by the intermediary of the Eastern Bureau of the arrival of ships having, or having had, on board cases of plague, cholera and smallpox, is happily becoming general; thirty-three Health Administrations of the East have undertaken to inform the Eastern Bureau of the existence of such infected ships. The arrival of a ship having on board cases of infectious disease has been notified to the Bureau on 107 occasions during the first half of 1927, as against 56 during the first half of the year 1926. Judging from expressions of appreciation that have been received by the Bureau regarding the utility of such a measure, it may be concluded that this activity is supplying a real want.

4. *Weekly Fasciculus.* — The *Weekly Fasciculus* published by the Bureau has been considerably remodelled and its circulation has had to be increased. New headings have been introduced. Since February last, the most recent telegraphic reports concerning the week following that with which the *Fasciculus* deals have been included; since March a table has been published at intervals of six weeks, which gives the number of healthy rats and infected rats caught and examined in the different ports. Since the end of July, a section has been devoted to information received from the new Epidemiological Centre at Melbourne. This latter information, which concerns cases of infectious disease of all kinds that have occurred in the Pacific Islands situated south of the Equator and between 140 degs. longitude East and West, is sent by cable to Singapore as it is received in Melbourne. The exchange of information between the two bureaux has thus been happily established, and there is every reason to believe that such collaboration will continue to be close and profitable.

5. *Communications received from the Quarantine Station at Camaran.* — With regard to pilgrimages, mention should be made of the arrangements concluded in June 1926 between the British and Dutch Governments with regard to the sanitary control of Mecca pilgrims, which is carried out at Camaran. In accordance with Article VI of this Agreement, the Government of British India undertakes to notify to the Eastern Bureau cases of plague and cholera that may have occurred on board pilgrim ships that call at Camaran. In spite of telegraphic difficulties which have somewhat delayed transmission, the Bureau has been kept regularly informed of the health situation of the station of Camaran and of the ships which have called there, thanks to the Public Health Administration of India.

6. *Vaccination by Mouth.* — With regard to vaccination by mouth the trials which were undertaken last year in British India are being continued. Judging from the provisional results which were communicated to the Advisory Council by its President in January last, the procedure appears to be effective in producing cholera immunity. Although the reports relating to vaccination by the mouth that have been carried out by Dr. A. J. H. Russell in the Madras Presidency, by Dr. B. B. Bramachari in Bengal and in the United Provinces, deal with figures too small to justify definite conclusions, it can nevertheless be said that the procedure employed in these three areas has undoubted value in cholera prevention. A recent report by Dr. Russell, entitled "Cholera Bilivaccin and Anti-Cholera Vaccine: A Comparative 'Field Test'", justifies the conclusion that a high degree of immunity is conferred by the administration of vaccines by the mouth and subcutaneously, but that the results obtained by anti-cholera inoculation are, in the long run, superior to those obtained by the administration of bilivaccin by the mouth.

Trials of anti-dysenteric vaccination have been carried out among coolies on certain plantations in Malaya, under the direction of Dr. A. N. Kingsbury, of the Medical Research Institute of Kuala-Lumpur. The Eastern Bureau has recently been able to obtain the collaboration of the Bureau of Science of Manila, where Dr. Schöbl proposes to carry out some experiments with anti-cholera vaccination by the mouth with monkeys. In the Dutch East Indies, Dr. Otten is ready, whenever a favourable occasion offers, to try anti-dysenteric vaccination by the mouth in asylums, prisons, schools, etc. Finally, in Chosen, Professor Shiga is carrying out experiments

with anti-dysenteric vaccine on animals, the results of which will be reported to the next session of the Advisory Council.

The Eastern Bureau, having been charged by the Advisory Council to collect the bibliography relating to vaccination by the mouth, two lists of references have been drawn up and communicated to the workers and to the laboratories interested in the question. Requests for documentation have already been addressed to the Bureau.

7. *The Bandoeng Exhibition.* — In June last, the Eastern Bureau participated in the Health Exhibition at Bandoeng in Java, by sending a series of tables and graphs dealing with the chief activities of the Health Organisation and the Eastern Bureau. The Exhibition had been attached to the Annual Fair with the object of attracting all classes and, in particular, the indigenous population. If one may judge from the number of visitors, this object was fully realised. The Director of the Eastern Bureau visited this Exhibition, and Professor NEEB, President of the Organising Committee, expressed to him his gratitude for the participation of the Health Organisation in this demonstration.

8. *Draft Constitution of the Advisory Council of the Eastern Bureau.* — In February last, the President of the Advisory Council of the Eastern Bureau asked the Health Committee to prepare a draft Constitution for the Advisory Council so that the members of the latter might be able to discuss the matter at their next meeting on the basis of definite proposals. The views of the Health Committee were to be submitted for the opinion of the interested Governments as well as to the members of the Advisory Council, who would thus be able to put forward definite recommendations at their next meeting in December 1927, the question of the constitution of the Advisory Council being on the agenda of that meeting.

The resolution of the Health Committee relating to this question was communicated in March 1927 to the members of the Advisory Council, with a request that they would kindly put forward such observations as they desired to make regarding the proposal.

The replies that have been received can be resumed as follows: The delegates of Siam, of Macao, of British North Borneo, of Australia and of the Philippine Islands are of the opinion that the proposals submitted to them are satisfactory.

The representative of the Straits Settlements states that the High Commissioner for Malaya considers that the interests of the States placed under his jurisdiction, the Federated and the Unfederated Malay States, the Straits Settlements, British North Borneo and Sarawak, might well be entrusted to a single delegate. He suggests, further, that all the British Colonies and Protectorates in the Far East might have but a single representative on the Advisory Council, and that this representative should be nominated by the Governor of the Straits Settlements. The Governments of Ceylon and Hong-Kong will, in the first place, have to be asked for their approval of this suggestion.

The Japanese Government considers that it would be well if a representative of the Japanese Colonies (Chosen, Formosa, Kwantung) which possess independent health administrations could be added to the list of delegates proposed by the Health Committee, in addition to the representative of Japan proper. It lays stress on the special geographical situation of these Colonies, necessitating international health measures in the interest not only of the Colonies themselves, but of Japan as a whole. This is why the Japanese Government asks the Health Committee to consider this question and to give Japan a second seat on the Advisory Council of the Eastern Bureau, before forwarding definite proposals concerning the constitution of that Committee to the Council of the League of Nations.

Draft Statutes (see Appendix 1) for the Advisory Council have been likewise communicated, with the approval of its President, to the members of the Committee by the Eastern Bureau. The objections that have been put forward hitherto may be resumed as follows: The Director-General of the Public Health Service of Siam would like the report of the Director of the Bureau to be transmitted to the Members of the Council six weeks before the annual session, in place of two weeks as suggested in Article 5 of the Draft. He also considers that a quorum should be defined.

Dr. OTTEN, acting Director of the Health Service of the Dutch East Indies, does not consider it advisable to assimilate the Advisory Council of the Eastern Bureau to one of the commissions such as has been suggested in Article 10 of the rules of the Health Committee. Whereas these commissions are created for the study of special problems, or of a series of related problems, the Advisory Council of the Singapore Bureau has to take into account very different problems. Consequently, it would be preferable to admit from the beginning that this Committee is an organic part of the Health Committee, and that it should have its own rules entirely distinct from those of the Commissions referred to in Article 10.

As for the periodic conferences to be attended by representatives of health services of the East who are not represented on the Advisory Council, it appears that these would result in overlapping with the annual sessions of the Advisory Council. For this reason, it would be well if the Health Committee could clearly state what would be the object of these periodic conferences, and what powers should be relegated to them.

Dr. OTTEN proposes several modifications in the texts of various articles of the draft project, and insists on the advantage there would be if the Director of the Singapore Bureau, in his capacity as Secretary of the Advisory Council, could be charged with the duty of convening the Advisory Council, and not the Secretary-General of the League of Nations. He suggests, moreover, that it should be laid down that the responsibility for drawing up the Budget belongs to the Advisory Council, subject to the later approval of the Health Committee.

In this connection, it may be pointed out that the mere fact of endowing the Advisory Council of the Singapore Bureau with regulations of its own is sufficient to show that there was no intention

of making it exactly comparable to one of the technical commissions subordinate to the Health Committee, but that it would enjoy a certain degree of autonomy.

The proposed periodic meetings of representatives of health administrations of the East, which are not represented on the Advisory Council, were intended to give an opportunity to the delegates of these Governments, several of which contribute to the finances of the Eastern Bureau, of expressing their opinion on the Bureau's work. The relationship of these periodic conferences to the Advisory Council might be analogous to that existing between the Permanent Committee of the Office international d'hygiène publique and the Health Committee of the League.

For the convocation of a committee, or of a commission, whatever its nature, the previous assent of the Secretary-General should be obtained, because the meeting might conceivably be inconvenient for political, financial or other reasons. In the case of the Advisory Council, the Director of the Eastern Bureau will be entrusted with the actual task of convocation, subject to the approval of its President.

These draft Statutes will be discussed by the Advisory Council at its next session, which, in accordance with the proposal made by its President, will be in Delhi after the Congress of the Far-Eastern Association of Tropical Medicine, and before the beginning of the interchange which will commence in Delhi in January 1928.

The provisional agenda of this meeting contains the following:

(1) Report of the Director of the Eastern Bureau;
(2) Budgets for 1928 and 1929;
(3) Draft Constitution for the Advisory Council;
(4) Work of the Plague Commission;
(5) Reports on trials carried out with vaccination by the mouth.

Attention should be called to the fact that the budget estimates for the Eastern Bureau appear as an annex to the general budget of the Health Organisation (see page 27 of the Budget of the League of Nations, 1928). In order to comply with the regulations of the League of Nations authorities, the Eastern Bureau will be subject to financial regulations which provide, among other things, that for each financial year the budget estimates, calculated in Singapore dollars, will be prepared by the Director of the Eastern Bureau, examined by the Advisory Council at its annual meeting, and submitted to the Health Committee, accompanied by observations formulated by the Advisory Council. The Budget proposals of the Eastern Bureau for 1929 will come under discussion by the Advisory Council during its meeting in December 1927, and will then be submitted to the Budget Sub-Commission during the spring session of the Health Committee.

Should the President of the Health Committee be able to accept the invitation that has been addressed to him by the Government of India to attend the Congress of the Far-Eastern Association of Tropical Medicine in Calcutta, as well as the early part of the interchange, he will be able to follow the work of the Advisory Council.

9. *Obligations imposed on the Eastern Bureau by virtue of Articles* 1, 2, 3, 6, 9, 12, 14, 16, 21, 28, 50 *and* 57 *of the International Sanitary Convention of Paris,* 1926. — The Health Committee decided to ask all public health administrations in relationship with the Singapore Bureau if they would be prepared to transmit the notifications and information described by Articles 1, 2, 3, 6, 9, 12, 14, 16, 21, 28, 50 and 57 of the new International Sanitary Convention by means of the Bureau. A letter (Appendix 2) was addressed to all administrations. Twenty administrations have hitherto expressed their opinion (Appendix 3). These replies as a whole indicate a general acceptance and a general agreement to transmit via Singapore the information demanded by the articles of the Convention. The Government of India has alone made certain reservations with regard to information demanded by Articles 9, 14, 28, 50 and 57, which information it wishes to send directly to the Office international d'hygiène publique, so as to avoid loss of time. The replies received have been communicated to the Director of the Office international d'hygiène publique. It is important to read these replies along with the terms of the actual agreement with the Office International concluded subsequent to the letter of March 30th, given in Annex 2. The text of this agreement has already been printed (Minutes of the tenth extraordinary session of the Health Committee).

## CHAPTER II. — SYSTEM OF LIAISON BETWEEN THE VARIOUS NATIONAL PUBLIC HEALTH SERVICES.

This section of the report deals with the work accomplished by the Health Organisation to establish liaison between the various national Public Health Services. A description is given of the " Interchanges of Public Health Personnel " of the International Courses of Public Health and of individual missions and scholarships. Finally, a programme for 1928 is considered (Annex 148).

### I. Interchanges of Public Health Personnel.

During the present year, two interchanges of public health personnel will have taken place, one in Great Britain and the other in Germany. An interchange which will take place in India in the beginning of 1928 is now being organised.

*Interchange in Great Britain.*

The health officers invited to take part in the interchange in Great Britain met in London on February 21st, 1927. They were ten in number and belonged to the Public Health Administrations of Belgium, Czechoslovakia, China, Germany, Italy, Lithuania, Poland, Roumania, the Kingdon of the Serbs, Croats and Slovenes, and Sweden. The Assistant Director of the Health Bureau of Bucharest and a second health officer from Czechoslovakia also took part in this interchange at the expense of their respective administrations. Thus the total number of participants was twelve.

The first week of the tour was devoted to a study of the various activities of the British Ministry of Health. Thereafter, a programme of a more practical and more specialised nature was followed. The participants were divided into groups of two and attached to the Health Services of the following towns and districts:

Two large ports — Liverpool and Glasgow,
Two important industrial centres — Birmingham and Bradford,
A residential suburb of London — Hornsey,
Certain health districts in Berkshire composed of rural areas and small towns.

In selecting the districts for the various participants, attention was paid to the special interests of each. In each of the above centres, all aspects of health work were studied. Attention was paid to school hygiene, industrial hygiene, maternity and child welfare and to tuberculosis work, venereal disease, sanitary engineering work (such as water supplies, drainage and sanitation of dwellings) health insurance and the general routine of a health office.

During the last week, participants met once more in London, where attention was paid to meat inspection, the health organisation of the Port of London, and visits were paid to institutes of medical research, of eugenics, of industrial psychology, and of tropical medicine, and to army and navy medical colleges.

After a final meeting at the Ministry of Health in London, the participants came to Geneva for a final conference which was held on April 4th and 5th, 1927.

*Interchange in Germany.*

The interchange in Germany commenced on September 19th and has not yet terminated. The final conference will be held in Geneva from November 1st - 3rd, thus coinciding with the eleventh session of the Health Committee.

Members of the Health Administrations of the following countries are taking part in this interchange:

The Argentine
Austria
Belgium
Bulgaria
Czechoslovakia
Denmark
Estonia
France
Great Britain
Hungary
Italy
Japan
Latvia
The Netherlands
Norway
Poland
Kingdom of the Serbs, Croats and Slovenes
Sweden
Switzerland
United States of America
U.S.S.R.

Dr Tsurumi, Vice-President of the Health Committee, likewise took part in a part of the tour. The total number of participants is twenty-five.

The President of the Health Committee went to Berlin on September 19th to attend the formal opening of the interchange at the Ministry of the Interior. Very great care has been devoted to the elaboration of the programme of this tour by the Health Administrations of the Reich, of the States of Prussia, Saxony and Bavaria and of the city of Hamburg. The programme covers a large field and each participant will be able to obtain a wide and comprehensive idea of the organisation of public health in Germany. Each place visited has been chosen because of some special interest it possesses from a public health point of view, and consequently an opportunity will be afforded the participants to see and to understand how a number of special health problems are dealt with in Germany. This interchange was very carefully prepared from other points of view; 80 pamphlets have been specially prepared for the tour by the chiefs of the various Institutions that will be visited. A complete set of these pamphlets has been sent to each member of the Health Committee. The early days of the tour were devoted to a detailed study of the *Reichsgesundheitsamt* and the different services and institutes dependent thereon. Thereafter visits are being paid to several large towns, a mining area, certain health resorts and some characteristic urban areas.

*Interchange in India.*

In conformity with the tenth resolution adopted by the Health Committee during its ninth session in February last, an interchange in India has been organised. This will be the second interchange which has taken place in Asia, the first having been held in Japan towards the close of 1925. A majority of the participants will belong to the Administrations of Eastern countries and special attention will be paid to problems of tropical medicine and hygiene. The Health Administrations of the following countries have been invited to nominate participants:

Australia
Ceylon
China
Dutch East Indies
Egypt
Federated Malay States
Indo-China
Japan
Persia
Philippine Islands
New Zealand
Siam
Straits Settlements
Union of South Africa.

Up to the present, Australia, Ceylon, the Dutch East Indies, the Federated Malay States, Japan, New Zealand, the Philippine Islands, Siam, French Indo-China and the Straits Settlements have sent in nominations. The Medical Department of the Union of South Africa is unable to accept the invitation. As this interchange will take place immediately after the Congress of the Far-Eastern Association of Tropical Medicine, it is probable, as was the case in Japan, that certain health officers who will attend the Congress will remain in India to take part in the interchange. The provisional programme is as follows:

| | | |
|---|---|---|
| January | 1st-3rd: | *Delhi.* Headquarters of Government of India. Concentration. |
| » | 3rd-9th: | *Punjab.* Government headquarters, Lahore. Visits from there. |
| » | 10th-16th: | *United Provinces of Agra and Oudh.* Government headquarters, Lucknow. Visits and excursions. |
| » | 16th-18th: | Travel to Bengal, visiting Patna, the headquarters of the Government of Bihar and Orissa, on the way. |
| » | 18th-24th: | *Bengal.* Government headquarters, Calcutta. Visits and excursions, |
| » | 25th-30th: | *Assam.* Government headquarters, Shillong, with visits to tea-growing areas and kala-azar country. |
| Jan. 31st - Feb. | 7th: | *Madras.* Government headquarters, Madras, with visits and excursions. |
| February | 8th-10th: | An Indian State (Mysore, if this can be arranged). |
| » | 11th-18th: | *Bombay.* Government headquarters, Bombay, with visits and excursions. |

The following questions will be studied:

(*a*) The organisation of the Medical Services in India.
(*b*) Statistical Services.
(*c*) Medical Institutes.
(*d*) Work done for the control of epidemic disease, notably malaria, plague, cholera, smallpox, relapsing fever, kala-azar, etc.
(*e*) Rural sanitation work and drinking-water supplies.
(*f*) Public health measures at fairs, etc.
(*g*) Medical research work.
(*h*) The Army Health Service.
(*i*) Diseases which are special to India.

## II. International Courses of Public Health.

The first International Course of Public Health organised by the Health Organisation was held in the Health Institute of the Faculty of Medicine in Paris from January 17th to March 5th, 1927. In view of the success attending that course, negotiations were entered into with the British Ministry of Health with a view to organising a similar course in London. The London course will be held from November 3rd to December 15th, 1927.

*The Paris Course.*

The Paris course was attended by 26 health officers belonging to the Health Departments of the following countries:

Bulgaria
Czechoslovakia
China
Estonia
France
Greece
Hungary
Latvia
Lithuania
Paraguay
Poland
Roumania
Spain
Kingdom of the Serbs, Croats and Slovenes
U. S. S. R.

Thirteen of these 26 health officers attended the course at the expense of the Health Organisation of the League, five attended at the cost of their respective Health Administrations and eight others attended the course at their own expense.

The course was divided into two parts. The first part consisted of a series of lectures given at the Hygiene Institute of the Faculty of Medicine. These lectures were followed in the afternoons by discussions (seminars). Each week one day was devoted to a visit to some organisation or health institute, either in Paris or its neighbourhood. The detailed programme of this course is attached (Appendix 4).

The second part of the course consisted in individual study tours in two or three countries selected by the Health Administrations of the health officers concerned. Twenty participants took advantage of this practical part of the course. Attention was exclusively paid to special problems of immediate interest to the officer concerned. Thus, the health officer from Bulgaria paid special attention to the prevention and epidemiology of social diseases; he visited Belgium, the Netherlands and Switzerland, where he was able to carry out a very complete study including visits to laboratories, dispensaries, open-air schools; attention was also given to the health organisation of the most important ports of the above countries. The health officer from Estonia was specially interested in the campaign against tuberculosis, alcoholism and in school hygiene. He visited Holland, Denmark and Norway. The two Greek participants visited France, Belgium, Germany, the Kingdom of the Serbs, Croats and Slovenes, and Switzerland; one was specially interested in infant welfare and in tuberculosis work. The second paid special attention to industrial hygiene, social welfare and water-supply problems. One of the participants from Hungary visited Poland, Sweden and Norway, where special attention was paid to infant mortality. The other visited Great Britain and the Kingdom of the Serbs, Croats and Slovenes to study measures taken for the prevention of infectious diseases. Health officers from Lithuania, Paraguay and Czechoslovakia were specially interested in the problem of infant mortality. One of the Paraguayan participants also visited the Institute of Tropical Medicine in Germany and devoted considerable time to the study of port health activity, visiting the quarantine station of Doel in Belgium, the disinfecting plant of the Red Star Line, hostels for emigrants, etc. The health officer from Poland included Denmark, Austria, and the Kingdom of the Serbs, Croats and Slovenes in his tour, where attention was paid to departmental and rural health work and to health insurance work in Austria. The majority of the health officers attending the course devoted a part of their time to the study of the prevention and epidemiology of tuberculosis and venereal disease.

*London Course.*

The programme of the London course was arranged by the Society of Medical Officers of Health in consultation with the British Ministry of Health and the Health Section. Lectures will be given on the following subjects:

(November 3rd to December 15th, 1927)

Sir G. Newman: The Historical Development of the Administration and Practice of Public Health in England.

Lt.-Col. F. E. Fremantle, M.P.: Parliament and the Public Health.

Sir G. S. Buchanan: Present-day position of Certain Preventible Diseases in England, in relation to Public Health Administration.

Professor H. R. Kenwood, Dr. R. A. Lyster: The Education and Training and Duties of Public Health Officers:
(*a*) The Medical Officer of Health;
(*b*) The Health Nurse;
(*c*) The Sanitary Inspector;
(*d*) The Midwife.

Dr. Andrew Balfour: (*e*) In the Tropics.

Sir W. Hamer, Professor Carl Browning, Professor W. W. C. Topley, Surgeon-Commander S. F. Dudley, R.N.:
(*a*) Epidemiology.
(*b*) Immunology.

Professor H. R. Kenwood, Dr. R. A. Lyster: Rural Hygiene.

Professor T. H. C. Stevenson: Demographic Statistics.

Dr. J. J. Buchan: Industrial Hygiene.

Professor E. P. Cathcart: Problems of Nutrition.

Dr. Charles Porter, Dr. A. W. J. MacFadden: Food and Milk Control.

Dr. G. F. Buchan, Dr. F. N. K. Menzies:
Maternity and Child Welfare.
Medical Inspection and Treatment of Schoolchildren.
The Problem of the Abnormal Child.
Special Schools.

Dr. F. J. H. Coutts or Sir Henry Gauvain: Tuberculosis.

Col. L. W. Harrison: Venereal Diseases.

Dr. E. Mapother: Mental Hygiene.

Dr. W. M. Willoughby: Port Sanitation.

Sir Berkeley Moynihan: Cancer.

Lord DAWSON: Heart Disease.
Dr. Smith WHITAKER or } National Health Insurance, including the Role of the
Dr. H. B. BRACKENBURY } Medical Practitioner in Preventive Medicine.
Dr. W. A. DALEY: Public Education in Health.

In addition to the above British lecturers, the following lecturers will participate:

Professor Dr. B. NOCHT: The Present Position of Chemicotherapy from the Clinical Point of View.
Dr. A. FORAMITTI: Health Insurance.
Dr. Robert DEBRÉ: Prophylaxis of Measles.
Professor G. Y. GIGLIOLI: Industrial Hygiene: New Aspects and New Problems.
Professor Dr. F. NEUFELD: Recent Research Work in connection with Tuberculosis and the Application of its Results.
Professor Cl. PIRQUET: Tuberculosis in Childhood.
Problems of Nutrition from the Practical Standpoint.
Dr. Haven EMERSON: Epidemiology of other than Communicable Diseases.
Heart Diseases.
Public Health as a Private Responsibility.
Professor Geraldo H. DE PAULA-SOUZA: Modern Practice of Preventive Medicine in a New Country.
Dr. M. TAUTE: The Development of the Administration and Practice of Public Health in Germany.
Professor Dr. S. NEUFELD: Recent Research work in connection with Tuberculosis and the Application of its Results.
Professor U. FRIEDEMANN: The Epidemiology of the Infectious Diseases of Childhood.
Drs. OLSEN and BOUDREAU: Special Enquiries of the Health Section of the League of Nations.

No sessions have been allocated for certain subjects which can best be covered by visits and demonstrations under the guidance of recognised authorities, *e.g.*, the work of the Medical Research Council (Sir Walter FLETCHER) and the examination of water supplies (Sir Alexander HOUSTON).

In the same way, medical officers of the Metropolitan Asylum Board will be asked to give demonstrations, and visits will be arranged to a typical General Hospital, a Poor-Law Infirmary and other institutions related to the Public Health Services.

Participants in the course have already been nominated by the Health Administrations of Brazil, Czechoslovakia, Germany, Iceland, India, Irish Free State, Northern Ireland, Kenya, the Netherlands, Norway, Scotland, the Kingdom of the Serbs, Croats and Slovenes, Sweden and the United States of America.

## III. Individual Missions and Scholarships.

1. The Committee will remember that, in pursuance of the arrangements made with the Japanese health and medical authorities for bringing us into closer relationship with our Far-Eastern colleagues, four Japanese medical officers were designated to study selected subjects for a few months in Europe. These officers have now completed their studies, namely:

(*a*) Dr. Tetsuichi HARA, Chief of the Department of Applied Science of the Imperial Government Institute for Nutrition, Lecturer at the Nutrition School, Tokio, studied the question of vitamines, special attention being paid to the presence and activity of vitamines A, B and D in bile, irradiated and non-irradiated, deprived of sterol and in ergo-sterol.

Dr. Tetsuichi Hara passed three months in Professor E. MELLANBY's laboratory at the University of Sheffield. He subsequently visited various institutes and laboratories in Glasgow, Liverpool and London, and in Germany, Denmark, Austria, Sweden, France and the United States.

(*b*) Dr. Zenjuro INOUYÉ, of the Bacteriological Department of the Government Institute for Infectious Diseases at Tokio, worked for seven months with Professor BESREDKA at the Pasteur Institute of Paris. He was engaged in a study of problems connected with vaccination by mouth. He likewise visited the Tropical Diseases Institute at Hamburg, the Bacteriological Service of the *Reichsgesundheitsamt* and the State Hygiene Institute in Berlin, and the bacteriological laboratories of the two Universities of Prague. He also worked with Dr. BOHRER at the Hygiene Institute at Strasburg.

(*c*) Dr. Tomosane IZAWA, Professor of Bacteriology at the Kejo University and at the Kitasato Institute of Tokio, came to Europe to study the methods employed in the prevention of venereal diseases. His very comprehensive programme included visits to Breslau, Berlin, Hamburg, Bremen, Copenhagen, London, Amsterdam, Rotterdam, The Hague, Brussels, Antwerp and Paris. He returned to Japan via the United States, where he continued his study.

(*d*) Dr. Kyoye KURODA, Inspector of Infectious Diseases at the Health Bureau of the Ministry of the Interior of Tokio, studied the relationship between health insurance and the public health service. He first visited Geneva, where he worked in the Health Section of the Secretariat and at the International Labour Office; subsequently, he visited Berne, Basle, Vienna, Budapest, Prague, Warsaw, Berlin, Cologne, Munich, Dresden, Copenhagen and London.

Professor Egerton GREY has been studying at Professor SAIKI's Institute at Tokio, and Drs. FONSECA and SAULIC were sent from Brazil and from the Kingdom of the Serbs, Croats and Slovenes respectively to study parasitology at the various Japanese institutes under a concurrent arrangement, by which Western medical officers were to study in Japan; these three medical officers have now returned to their respective countries, and a report on the laboratory studies of Professor Egerton GREY will be presented to the Health Committee early in 1928.

2. The Committee will be glad to learn that Professor SAIKI, in addition to the lectures which he delivered before the Committee in February last, lectured at the Universities of Berlin, Copenhagen, Hamburg, Stockholm and at the *Gesellschaft für Kinderheilkunde* in Vienna, as well as at various University centres in Great Britain. (In his report, Professor Saiki states that he has been in London, Sheffield and Cambridge, but he does not state whether he has delivered lectures in these three places, with the exception of London, where he lectured at the Royal School of Tropical Medicine and Hygiene.) He also visited the United States, at the invitation of the Rockefeller Foundation, where his lectures, given at Sandford University, California, and New York, were attended with great success. He then joined Professor MADSEN and the Medical Director in Brazil, where he gave a series of lectures before the Academy of Medicine. His lectures at the Universities of Montevideo and of Buenos Aires attracted unusually large audiences and are expected to result in technical contact with Dr. Saiki's Institute. At Santiago de Chile, in addition to giving lectures which were received with enthusiasm, Dr. SAIKI was consulted by the Chief of the State and Government in regard to nutrition research, and arrangements were made for one of Dr. Saiki's chief assistants to come to Chile for two years with the purpose of organising a Nutrition Institute in that country. On his return journey to Japan, Dr. Saiki intended to lecture in Colombia and Guatemala.

Dr. Saiki proposes, after returning to Japan, to present to the Health Committee an account of his tour.

3. In pursuance of the same arrangement for liaison with the Far East, Dr. WU LIEN TEH, Chief of the Chinese Anti-Plague Service in Harbin, spent three months in Europe visiting the principal University Centres and chief medical research institutes. He also studied the organisation of the Public Health Services of Great Britain, France and particularly of Switzerland. He attended the preliminary meeting of plague experts which was held in Paris at the time of the Rabies Conference.

4. Professor Akira FUJINAMI, of the Imperial Institute of Kioto, to whom facilities were given by us to visit Brazil as the result of an arrangement with the Japanese and Brazilian Governments, spent four months this summer in Brazil. He visited the chief Japanese colonies in the Southern Brazilian States and São Paulo and Bahia. He also studied the organisation and work of the Oswaldo Cruz Institute, and delivered a very valuable report of his observations regarding parasitic disease among Japanese immigrants and labourers in the above-mentioned districts, at the Medical Faculties of São Paulo and Bahia and at the Academy of Medicine at Rio de Janeiro.

5. Dr. L. ANIGSTEIN, of the State Institute of Hygiene at Warsaw, a corresponding member of the Malaria Commission, has just completed a month at the Anti-Malaria Institute of Trogir, where he studied the artificial infection of anopheles and their breeding in the laboratory. Numerous requests for living infected mosquitoes are being received at the Hygiene Institute at Warsaw from medical practitioners in Poland for the purpose of treatment by artificial infection of malaria.

6. It will be recollected by the Committee that Dr. STAMPAR placed a sum of money at the disposal of the Malaria Commission, generously bestowed by the Serb-Croat-Slovene Government for the purpose of enabling two foreign malariologists to study at the Malaria Institutes in that country. Dr. Samuel PESSOA, parasitologist at the Institute of Hygiene of São Paulo in Brazil, has been a beneficiary under this arrangement and has completed a period of study in the various centres for malaria control in the Kingdom of the Serbs, Croats and Slovenes.

## IV. PROGRAMME FOR 1928.

The budget of the Health Organisation for 1928 provides a sum of 25,000 dollars less than in the preceding year under the item: "System of liaison with various national health administrations". For this reason, no general interchange in addition to that which begins in India at the beginning of January has yet been contemplated. The suggestions for practical collaboration made to the President of the Health Committee in Latin America, which, in virtue of the resolution adopted by the last Assembly, are transmitted by the Council to the Health Committee for its advice, would, if accepted, require a reservation of funds in our interchange credits for scholarships for Latin-American countries at the School of Public Health at Rio de Janeiro. In addition, foreign lecturers are to be invited by us to participate in the Rio de Janeiro course.

A further provision must be made for individual missions, particularly for medical officers coming from the Far East, as well as in connection with certain preliminary studies which the Health Committee wishes to undertake, for example, in physical education, radiology, etc.

The Committee will no doubt desire to continue the organisation of the courses in malariology, which are described in the Chapter on Malaria, the expenses of which would fall under that head in the budget.

If, however, after a closer examination of the estimates, or in the event of further arrangements with the International Health Division of the Rockefeller Foundation, it should be found possible to organise a general interchange, it is proposed that the Italian Health Administration should be approached, with a view to arranging an interchange in that country, based on the German model, *i.e.*, the study of the principal aspects of public health, devoting attention to a different problem in each of the provinces visited. It might also be advantageous to hold another International Public Health Course.

## CHAPTER III. — PUBLICATIONS.

In this chapter, a list of the publications issued in 1927 is given.

### 1. Service of Epidemiological Intelligence and Public Health Statistics.

(*a*) *Weekly Bulletins* (bilingual), Nos. 41 to 82.
(*b*) *Monthly Epidemiological Reports* (bilingual), Nos. 98 to 106.
(Each number of about 70 pages.)
(*c*) *Annual Epidemiological Reports.* (No. 11 in preparation.)
(*d*) *Weekly Fasciculus* (bilingual). Epidemiological intelligence received from the Singapore Bureau, Nos. 95 to 128.
(*e*) *Statistical Handbooks:*

C.H.530. — Official Vital Statistics of the French Republic, by Professor M. Greenwood and Major P. Granville Edge. 115 pages. July 1927.
C.H.565. — Official Vital Statistics of the Kingdom of Hungary, by Professor M. Greenwood and Major P. Granville Edge. 36 pages. July 1927.
C.H.524. — Official Vital Statistics of the Czechoslovak Republic, by Professor M. Greenwood and Major P. Granville Edge. 71 pages. August 1927.

### 2. Special Studies and Investigations.

(*a*) *Malaria Commission.*

C.H. Malaria 73. — Principles and Methods of Anti-malarial Measures in Europe. Second General Report of the Malaria Commission. 95 pages. July 1927.
C.H. Malaria 69 (1). — Rapport sur le voyage d'études de la Commission de paludisme en Sicile. In French only, 49 pages. August 1927.
C.H.196. — Malaria in the Kingdom of the Netherlands. Report to the Malaria Commission of the Health Committee of the League of Nations, by Professor N. H. Swellengrebel. In English only, 72 pages. July 1927.
C.H. Malaria 74. — Programme of the Malaria Courses arranged by the Health Organisation of the League of Nations. French, English and German editions (23 pages). February 1927.

(*b*) *Commission for the Study of Human Trypanosomiasis.*

C.H.536. — Interim Report of the International Commission on Human Trypanosomiasis. 147 pages. April 1927.
C.H.629. — Final Report of the International Commission on Human Trypanosomiasis. (French and English editions in preparation.)
This report includes eight contributions which have been written by the members of the Commission in Entebbe (Dr. Duke, Dr. Kleine, Dr. Lavier, Dr. Peruzzi, Dr. Prates and Dr. Van Hoof) and also their conclusions and final recommendations.

(*c*) *Rabies Conference.*

C.H.531. — Preliminary Report intended as a Basis of Discussion for the International Rabies Conference to be held at the Pasteur Institute, Paris, from April 25th to 29th, 1927, organised by the Health Section of the League of Nations — by A. C. Marie, Professor at the Pasteur Institute, Paris; P. Remlinger, Director of the Pasteur Institute of Morocco (Tangiers); and H. Vallée, Director of the Laboratoire national de Recherches, French Ministry of Agriculture. 103 pages. April 1927.

(*d*) C.H.474(1). — A Treatise on Pneumonic Plague, by Dr. Wu Lien Teh. English only, 466 pages. (New revised edition in preparation.)

3. Special Studies.

C.H.523. — Progress of the Science of Nutrition in Japan, by Professor Saiki. Already published in English. 387 pages. (French edition in preparation.)

4. Organisation of Public Health Services in Various Countries.

C.H.606. — Public Health Services in Norway, by Dr. A. M. Gram, Director of the Public Health Service in Oslo. 39 pages. July 1927.

Public Health Services in Finland, by the Sanitary Administration of Finland. (In preparation.)

Public Health Services in Sweden, by Dr. R. Wawrinsky. (In preparation.)

Public Health Services in Poland, by Madame Adamowicz, Warsaw. (In preparation.)

C.H.599. — *The International Health Year-Book for 1926.* Report on the Public Health Progress in Various Countries. (In preparation.) Until now we have received reports from twenty-five countries, from the League of Red Cross Societies, and from the International Division of the Rockefeller Foundation, and also a report on the progress made in Germany concerning industrial hygiene.

5. Minutes of Sessions of the Health Committee, Reports, and Constitutional Questions.

C.107.M.38.1927.III. — Minutes of the Ninth Session of the Health Committee. 103 pages. July 1927.

C.350.M.124.1927.III. — Minutes of the Tenth Session (Extraordinary) of the Health Committee. 16 pages. August 1927.

A.9.1927.III (C.H.529). — Annual Report of the Health Organisation for 1926. 29 pages. March 1927.

Unless otherwise stated, all the above documents have also a French edition.

## Second Part.

## TECHNICAL SECRETARIAT OF COMMISSIONS AND CONFERENCES.

### CHAPTER I. — MALARIA.

The report of the Chairman of the Malaria Commission will form an important item for the consideration of the Health Committee. The latter will also desire to have information regarding the courses at the Schools of Malariology, the organisation of which was carried out by the Health Section.

As in previous years, arrangements for a complete theoretical course were made by Dr. Andrew Balfour at the London School of Hygiene and Tropical Medicine, by Professor B. Nocht at the Hamburg Institute for Marine and Tropical Diseases, and by Professor Brumpt at the Paris Faculty of Medicine. Following established precedent, scholarships were granted by the Health Organisation to medical officers of the Malaria Services of various countries, while the courses were also attended by scholars of the International Health Division of the Rockefeller Foundation, as well as by other medical officers participating either at their own or at their administration's expense.

Although the *London* course unfortunately could not be held, owing to the absence of any English-speaking candidates, the Health Organisation's thanks are due to Dr. Andrew Balfour for the care and trouble taken in making the necessary preparations. The two other courses in *Hamburg* and *Paris* were attended by a total number of 63 students, of whom 12 were holders of Malaria Commission Scholarships and 10 possessed Rockefeller Foundation Fellowships. Of the remainder, five were sent at the expense of their administrations and 35 attended privately. Of the 21 countries from which the students came, four were Asiatic (Armenia, Palestine, Persia, Turkey), six were Central and South American (Argentina, Colombia, Guatemala, Paraguay, Peru, Venezuela), ten were European (Azerbaidjan, Bulgaria, France and Colonies, Germany, Italy, Portugal, Roumania, Spain, the Kingdom of the Serbs, Croats and Slovenes, U.S.S.R.), and one was from the United States.

These courses were followed by practical " stages " of two months in Spain, Italy and the Kingdom of the Serbs, Croats and Slovenes, in which 30 medical officers participated; 15 of these were granted Malaria Commission Scholarships, 11 held Rockefeller Foundation Fellowships and the remainder came at their own or at their administration's expense. These participants belonged to 15 different nationalities, three being from Asia (Armenia, Persia, Turkey), seven from Europe (Bulgaria, France and Colonies, Portugal, Roumania, Spain, Syria, and the Kingdom of the Serbs, Croats and Slovenes, U.S.S.R.), the other countries being Mexico, Paraguay, the United States and the Union of South Africa.

In Spain, the practical course was carried out under the supervision of Professors Pittaluga and de Buen, and was attended by 14 medical officers. Three groups of medical officers went to Italy, where each was engaged in practical work for a period of four weeks. Each of the first two groups comprised six medical officers and the last 15. Two groups went to the Kingdom of the Serbs, Croats and Slovenes, the first comprising eight medical officers, and the second two.

The report of the Chairman of the Malaria Commission will doubtless contain an appreciation of these courses and suggestions for the future. There can be no doubt of their greatest possible utility to the health administrations of countries in which malaria offers public health problems of importance. Participants have spoken most appreciatively of the facilities for study offered. Several applications were received from medical officers who attended the theoretical course at their own expense for financial assistance to enable them to follow the practical course in the field. Unfortunately, financial considerations made it impossible to comply with these requests. It might be possible in future years to set aside a certain sum to meet the cost of the practical *stage* for one or two of the unassisted medical officers attending each laboratory course who have shown the greatest aptitude. It is suggested that the Lothian Scholarship might take this form (see list of scholars, Appendix 5).

### CHAPTER II. — STANDARDISATION OF BIOLOGICAL AND SEROLOGICAL PRODUCTS.

The President of the Health Committee will doubtless desire to present a note on the steps taken to ensure an international understanding in regard to the classification of serological blood grouping.

The Permanent Standards Commission will probably meet early in 1928, before the spring session of the Health Committee, at Frankfort-on-Main, upon the invitation of Professor W. Kolle. A discussion will then take place upon the further studies to be undertaken of the standardisation of salvarsan and upon the final results of the investigations which have been conducted during the past few years into the standardisation of the anti-dysentery serum. Any further proposals that may have been made in the meantime to the Commission will also receive preliminary consideration.

Professor H. H. DALE, who is conducting on behalf of the Commission the standardisation of biological products, is contemplating the desirability of convening a Third International Conference on Biological Standardisation in the course of the year 1928.

The activities of the Permanent Standards Commission may be extended to Latin-American countries, as a result of the proposals contained in the Report on the President of the Health Committee's voyage on that Continent.

## CHAPTER III. — THE JOINT COMMISSION OF EXPERTS ON THE RELATIONS BETWEEN PUBLIC HEALTH SERVICES AND HEALTH INSURANCE ORGANISATIONS.

During the tenth session of the Health Committee, held in Paris on April 26th and 27th, 1927, reference was made to the work of the Joint Commission on Health Insurance, which met in Geneva on April 11th and 12th, 1927. This Commission was set up on the recommendation of the Health Committee at its ninth session, and consisted of six experts nominated by the Governing Body of the International Labour Office, representing the health insurance organisations, and six experts nominated by the Health Committee, representing the public health services. The secretariat was composed of the Insurance Services of the International Labour Office, headed by the Chief of the Research Division, and the Health Section, headed by the Medical Director. The Commission was presided over by Sir George NEWMAN, Chief Medical Officer of the British Ministry of Health.

The Joint Commission prepared a report (Annex 144 B) recommending that appropriate surveys of certain aspects of public health and social insurance from the point of view of preventive medicine be carried out in certain districts of selected countries. These surveys, which have already begun, are being supervised by members of the Commission working in pairs, each pair including a representative of the public health services and a representative of the health insurance organisations. The enquiries in each case are being carried out by competent investigators. The special subjects under consideration are the following: Education of insured persons in hygiene; the protection of maternity, infancy and the child of pre-school age; the prevention of tuberculosis; the prevention of venereal diseases; the protection of the child of school age.

The study of these subjects in their relation to the public health services and the health insurance organisations is being made according to a plan prepared by the joint secretariat in consultation with the members of the Commission. Copies of this plan are available to members of the Health Committee.

In view of the long experience of health insurance organisations in Germany in the campaign against tuberculosis, and the interesting relations which have been developed between these and the public and private health agencies in certain German cities, Dr. HAMEL, chairman of the Sub-Commission on Tuberculosis, in agreement with Dr. GRIESER, has made arrangements to secure reports on this aspect of the enquiry in Cologne, Dresden and Munich, and the preparation of these reports is now in progress. Material on tuberculosis and in the protection of maternity, infancy and the child of pre-school age is being collected in Vienna and Prague under the direction of Dr. A. FORAMITTI and Dr. L. WINTER. Information in regard to the protection of the child of school age is being collected under the direction of Dr. KUHN and Mr. POTTS in Denmark and England, respectively, and Dr. BELLENCONTRE and Dr. GRIESER have made plans to submit a report on the prevention of venereal diseases, the first part of which will deal with the situation in selected districts of France where voluntary health insurance organisations have played a part.

The delegate of Czechoslovakia to the Second Commission of the ninth ordinary session of the Assembly expressed the gratification of his Government concerning the action taken by the Health Committee to give effect to the proposal of the Czechoslovak delegation to the sixth ordinary session of the Assembly. He stated that steps had been taken by the competent authorities of the Czechoslovak Government to put into practice the recommendations of the Joint Commission, and to this end a national committee had been set up in Prague, representing all the health and insurance agencies concerned. This committee has held several sessions and prepared a valuable report on the six subjects originally considered by the Joint Commission. The additional subject is rheumatism, and the report relates to the situation in the whole of Czechoslovakia. This report is available (English translation) to members of the Health Committee. The findings of this national committee, which was organised along the same lines as the Joint Commission, will be of great assistance to the Joint Commission, and the Health Committee will doubtless wish to express its appreciation of the initiative of the Czechoslovak Government and the hope that other interested Governments may decide to adopt this useful plan.

It is proposed to convene the Joint Commission as soon as its principal sub-commissions have prepared and adopted reports.

## CHAPTER IV. — CONFERENCE OF HEALTH EXPERTS ON INFANT WELFARE.

It will be remembered that the principal object of the enquiry at present being undertaken by the infant welfare experts is to collect existing information with regard to the causes of infant mortality. The basic principles of this enquiry were laid down in the two reports drawn up by the conference of experts held in Geneva and Paris in September 1926 and in January 1927.

Twenty-nine urban and rural areas have been selected in seven countries of Europe: Germany, England, Austria, France, Norway, Italy and the Netherlands.

The enquiry which is being carried out in these areas is described in detail in Appendix I of document C.H. 634 (Annex 144 C). The first results of the enquiry, organised in a uniform manner, were discussed at a meeting of experts which was held at Vienna on September 26th, 27th and 28th, 1927. A report relating to this conference will be distributed to the Health Committee before the October session (Annex 144 C).

In conformity with the resolutions adopted by the Health Committee during its eighth session, the Health Organisation has obtained the collaboration of South American experts, who met in conference at Montevideo from June 7th to 11th, 1927 (see Annex 142 B).

## CHAPTER V. — MEETING OF THE COMMISSION OF EXPERT STATISTICIANS, MARCH 1927.

At its tenth meeting, held in Paris on April 27th last, the Health Committee took cognisance of the report of the Commission of Expert Statisticians (Annex 144 D). It will be recalled that that Commission elaborated a provisional International List of Causes of Death containing 90 rubrics, which it recommended for consideration of the various Governments. It further suggested that proposals for the inclusion of additional details in the International List might most conveniently be made in the form of subdivisions of these 90 rubrics.

Another short list of 27 rubrics was drawn up: it was considered that this might be found useful for the purpose of provincial and other local classifications. The Commission further recommended that each country should publish a complete list of the terms which it intends to include in each rubric.

The Commission recommended that all still-births be reported upon forms, indicating the professional or lay character of attendance, and the cause of death, so far as this can be determined, according to a classification to be agreed upon, and included in the detailed International List of Causes of Death.

The Commission further considered the preparation of a Nomenclature of Diseases, on which subject they adopted the following resolution:

> " The Commission of Statistical Experts, while limiting its immediate consideration to the List of Causes of Death, calls the attention of the Health Committee to the importance of securing accurate statistics of sickness which may not cause death but materially concern the working ages of life between childhood and old age, and to the great value of such statistics from the point of view of public health as well as for economic and administrative purposes.
>
> " The Commission recommends that, to this end, information should be collected as to any lists of terms describing sicknesses which may be at present in use, and any statistical data that have already been collected under any nomenclature of diseases, as well as on any other available sources of information (sickness insurance, hospitals, dispensaries, etc.).
>
> " The Commission suggests that a letter should be addressed to authorities of the various Governments competent in this respect asking if they are prepared to co-operate in this study and, if so, if they would agree to communicate to the Health Committee of the League of Nations all relevant documents. Such authorities should be asked, further, if they would be ready to examine the question with the assistance of national committees, which would secure the assistance of medical statistical and administrative experts.
>
> " The Commission suggests that the work of any such national committees should be co-ordinated through its agency with a view to preparing ultimately an international list of terms describing sicknesses. This list should, as far as possible, be comparable with the rubrics of the current detailed International List of Causes of Death. In any such study, account should be taken of the morbidity statistics of armies and navies as well as of the civil population.
>
> " The Commission recommends that the preliminary study of the documents obtained from the national administrations or otherwise available should be made by the Health Section of the League of Nations, with the help of members of this Commission or of national committees, and a report presented as early as possible.
>
> " The Commission would suggest that a detailed plan of further study could best be prepared after a close analysis of this report. "

A copy of the Commission's report was addressed by the Secretary-General to all Governments, with a request that it be referred to the departments of the Governments concerned. Letters were also addressed by the Medical Director to the chiefs of statistical bureaux and others specially interested in these subjects, asking for their co-operation. In these letters, attention was specially directed to the resolution quoted above.

The Director of Health of Spain has informed the Health Organisation that the resolutions of the Commission are being studied by the Statistical Office, whose observations will be forwarded in due course. In Poland, a special conference was convened by the Chief of the Statistical Office in Warsaw to consider the revision of the International List of Causes of Death and an International Nomenclature of Diseases. The matter is still under consideration. In Czechoslovakia, a national committee of expert statisticians has been formed to collaborate with the Commission of Expert Statisticians of the Health Organisation. This national committee has approved, subject to certain observations with regard to individual terms used, the proposed list of 90 rubrics. The committee has commenced the study of a nomenclature of diseases, the results of which it has promised to submit to the Health Organisation of the League. In Greece, a national committee has been formed to study the preparation of a nomenclature of diseases. In China, the National Epidemic Prevention Bureau, Peking, is collecting all available material relating to morbidity statistics in China. In Austria and in Hungary, the creation of national committees is being considered (see also Annexes 144 E and F).

The Health Section has made considerable progress in collecting lists of terms describing sickness at present in use in hospitals, sickness insurance societies, etc. In this study, and in that of morbidity statistics in general, invaluable assistance has been given by Dr. ROESLE, the Director of the Service of Medical Statistics of the *Reichsgesundheitsamt*, Berlin. A memorandum by him on this subject will probably be placed before the Health Committee at its forthcoming session (Annex 144 G).

## CHAPTER VI. — INTERNATIONAL RABIES CONFERENCE.

The report on the work of the International Rabies Conference (Annex 144 H) has been distributed to the members of the Health Committee. The resolutions adopted at that Conference are for the consideration and approval of the Health Committee.

The Health Organisation of the League is specially concerned with Resolutions 5, 6, 7, 8, 9 and 10 (the text of which is given below).

The Health Organisation has been asked to consider the possibility of organising enquiries into:

(*a*) The relative value of rabies vaccine killed by carbolic acid and ether respectively, and subsequently other methods;

(*b*) The plurality of strains of street and fixed virus;

(*c*) The rabicidal action of the serum of man and animals during and after immunisation;

(*d*) The possibility of supplying all anti-rabies institutes with a strain of fixed virus of high protective value.

If the Health Committee decides to comply with this request, it would doubtless be possible to obtain the co-operation of certain leading Pasteur Institutes in carrying out these enquiries. It may be mentioned that some of these experiments are already being carried out on a large scale in certain institutes, in which case it would only be necessary to co-ordinate these enquiries and the results obtained.

The Health Organisation has also been invited to publish statistics of the results of anti-rabies treatment in the different anti-rabies institutes of the world, and to arrange for the distribution to the various institutes of the world of information relating to rabies. Should this request be favourably considered, the first step would be to draw up a schedule in accordance with the indications detailed by the Conference for the statistical tabulation of the results of anti-rabies treatment. The work would entail the annual publication of a report, which would be of very great value to all interested in this question. A tabulation of results on a uniform basis by all the institutes of the world, differing considerably one from another with regard to the method of treatment employed, would, in a very few years, supply answers to many problems which had to be left unsolved on the information available at the time of the Conference.

The Health Committee will remember that preliminary reports by Professor MARIE, Dr. REMLINGER and Dr. VALLÉE, together with replies received from Pasteur Institutes to a questionnaire sent out by the Health Organisation of the League, formed the basis of discussion at the International Rabies Conference. These three reports have been modified, and in large measure re-written, as a result of the contributions presented to the Conference and of the discussions which took place, and will shortly be published as the definitive report of the Conference in French and English.

" 5. The Conference recommends that comparative tests on a large scale be carried out in certain selected institutes with vaccines killed by carbolic acid and ether; other methods might subsequently be tested in similar manner.

" 6. The Conference recommends that enquiries be made into *the plurality of strains of street and fixed virus*, and into the *rabicidal action of the serum of man and animals during and after immunisation*.

" Special interest attaches to the detailed investigation of strains of street virus in cases where, in spite of apparently slight risk, treatment fails.

" 7. The Conference requests the Health Organisation of the League of Nations to consider the possibility of organising the investigations described in paragraphs 5 and 6, and of arranging for the collection and distribution, to the various institutes of the world, of information relating to rabies.

" 8. The League's Health Organisation is requested to arrange with one or more institutes that preliminary investigations be carried out with the object of supplying all anti-rabies institutes with a strain of fixed virus of high protective value.

" 9. It is desirable also that the different institutes should send, from time to time, their own strains of fixed virus to a specially selected Institute for comparative tests.

" It is further recommended that anti-rabies institutes should examine at regular intervals the strains of fixed virus in use to ensure that their virulence has undergone no modification.

" 10. The Health Organisation of the League is invited to publish statistics of the results of anti-rabies treatment in the different anti-rabies institutes of the world. To this end, every Pasteur Institute should send each year its statistics tabulated according to a schedule to be drawn up by the Health Organisation. Each institute should report its *total* mortality. In this connection, it is desirable that each institute should follow the after-history of its patients for at least six months, and whenever possible, for a period of one year after the termination of treatment; the co-operation of the local authorities should be enlisted for this purpose. Each institute should intimate what it has been able to do regarding this matter.

" Each institute should analyse the *total* mortality with regard to the following factors:

" (*a*) Species of biting animal;

" (*b*) Evidence of rabies in biting animal (categories A, B, C, D);

" (*c*) Whether the infection was due to deep or superficial lesion, or whether there was no visible lesion;

" (*d*) Bitten through bare skin or clothing;

" (*e*) Position of bite (head, arm, trunk, legs) (multiple bites to be classed according to the site of greatest danger);

" (*f*) Interval between bite and commencement of treatment: under four days, four to seven days; over seven days.

" Any change in the method of treatment should be reported. All paralytic accidents should likewise be reported with full details, whether such accidents prove fatal or not.

" Separate statistics should be supplied for patients treated in institutes and for those treated outside."

## CHAPTER VII. — CONFERENCE ON SCHOOLS OF PUBLIC HEALTH AT BUDAPEST AND ZAGREB.

The Committee will remember the invitation, communicated at its last session, from the Health Administrations of Hungary and the Kingdom of the Serbs, Croats and Slovenes, regarding the two new Schools of Public Health established through the Rockefeller Foundation at Budapest and Zagreb, which were to be opened on September 29th and October 3rd respectively. A resolution of the Commission on Public Health Instruction, adopted at the time of the inauguration of the Warsaw School of Public Health, recommended to the Health Committee that the Directors of these schools should meet periodically in order to exchange views on various problems, methods of development and mutual co-operation. It was accordingly arranged that invitations should be issued to Directors of Schools of Public Health, to meet and confer on the occasion of the opening of the two schools mentioned above. In addition, the following members of the Health Committee

who took part in the work of the Commission on Public Health Instruction expressed their willingness to attend the Conference:

Professor Léon BERNARD;
Professor J. CANTACUZÈNE;
Professor C. CHAGAS;
Dr. W. CHODZKO;
Professor Ricardo JORGE;
Professor D. OTTOLENGHI.

Professor Léon BERNARD, Rapporteur on the subject, will present a memorandum to the Health Committee, (C. H. 661) giving details of the Conference, to which the following were invited:

Dr. J. B. BARRETO, Assistant to Director of Public Health, Rio de Janeiro.
Dr. B. BORCIC, Director of the State Institute of Hygiene, Zagreb.
Dame Janet CAMPBELL, Senior Medical Officer, Ministry of Health, London.
Professor A. GROTJAHN, Professor of Social Hygiene, Berlin.
Dr. HAMEL, President of the Reichsgesundheitsamt.
Dr. HIRSZFELD, Acting Director of the State Institute of Hygiene, Warsaw.
Dr. JOHAN, Director of the State Institute of Hygiene, Budapest.
Dr. KUCERA, of the State Health Institute of Prague.
Sir George NEWMAN, K.C.B., M.D., Chief Medical Officer of the British Ministry of Health.
Dr. PELC, of the State Health Institute of Prague.
Professor ROTT, Director of the State Institute for the Prevention of Infant Mortality.
Professor SCHLOSSMANN, Professor of Social Hygiene and Pediatry, and Director of the Child Clinic at Dusseldorf.
Dr. SCHOLTZ, Secretary of State in the Ministry of Public Welfare and Labour in Budapest.
Professor DE PAULA SOUZA, Director of the Hygiene Institute, Sao Paulo.
Dr. STAMPAR, Director of the Health Administration in the Kingdom of the Serbs, Croats and Slovenes.
Dr. VACEK, Assistant Director, State Hygiene Institute, Prague
Professor W. H. WELCH, Director of the School of Public Health in Johns Hopkins University, Baltimore.

Of those invited, the following are unable to attend the Conference:

Professor J. Cantacuzène.
Professor C. Chagas.
Dr. Kucera.
Sir George Newman, K.C.B., M.D.
Professor Schlossmann.
Dr. Hamel.

The agenda of the Conference, drawn up in accordance with the wishes of the Hungarian and Serb-Croat-Slovene health authorities, is as follows:

1. Programmes for Schools of Public Health.
2. Relation of Schools of Public Health to:
   (*a*) Universities,
   (*b*) Public Health Services.
3. Recruitment of candidates for Schools of Public Health.
4. Co-operation between Schools of Public Health.

## CHAPTER VIII. — INTERNATIONAL COMMISSION ON SLEEPING-SICKNESS.

The work of the International Sleeping-Sickness Commission terminated on June 30th, 1927, when the Commission disbanded. The major part of the final report has been received, together with a note by Dr. DUKE, the President of the Commission, regarding the final six months of the Commission's activity. Much of the last six months has been spent in the field. Professor KLEINE and Dr. VAN HOOF have been travelling almost constantly. The former carried on his work at Ikoma in Tanganyika Territory; the latter visited the Semliki valley in company with Dr. LAVIER, the Uelle district of the Congo with Dr. Duke, and the Budama-Kavirondo area with Dr. PRATES. In spite of all the travelling — which generally was far from comfortable — the general health of the Commission was on the whole good.

In the middle of June, a conference was held in Entebbe to discuss the final report, and the latter weeks of that month were devoted to finishing off the work, writing-up reports, etc.

Dr. Duke refers appreciatively to the services rendered by Dr. PERUZZI, the Italian member who joined the Commission on February 7th last. Regret is expressed that his service with the Commission was so short, in spite of which, however, he contributed very largely to its work.

The assistance given to the work of the Commission by the Governments of the various territories in which the work was carried out is referred to in appreciative terms. Relations with the Uganda Government were throughout most cordial, and every request for assistance was willingly and generously met. The Governments of Kenya and Tanganyika Territories contributed the travelling expenses of Professor KLEINE during his stay in Kavirondo and Ikoma respectively. The Government of the Belgian Congo likewise contributed to the expenses of travelling in the Semliki and Uelle districts and was always ready to give assistance.

Dr. Duke states that arrangements are being made for the British Government to carry on in Uganda the work inaugurated by the Commission. He also expresses the hope that there will be in the future a co-ordination of research activities in the African territories in which sleeping-sickness prevails.

Although final solutions have not been found for all the problems which were presented to the Commission, the final report of the Commission is a very valuable addition to the literature of sleeping-sickness, and the Commission expresses itself as very satisfied with the progress that has been made in so relatively short a time.

Dr. Duke's note, from which the above facts are taken, will appear as a foreword to the final report which is now being translated and prepared for the press. That note also contains the text of the farewell message sent to the Commission by His Excellency the Governor of the Uganda Protectorate, which is as follows:

> " I greatly regret my inability to be present in person to bid farewell to the members of the International Commission on Sleeping-Sickness. The work of the Commission will undoubtedly mark a new era of international co-operation among all the Powers possessing territory in Africa, and I trust it will lead to a standardisation of methods for controlling sleeping-sickness. In this respect, the Governments of the British territories in Africa have much to learn from the methods employed in those other colonies which have experienced the disease for many years past and have perhaps devoted more attention to the clinical and therapeutic aspects of this great problem. The results of the Commission's labours will be of the utmost value to African administrations as well as to science, and this Protectorate, as well as Kenya and Tanganyika Territories, has already derived material benefit from the indefatigable labours of Professor F. K. Kleine and Dr. van Hoof in the areas visited by them. I am glad that Uganda was chosen as the scene of operations of the distinguished scientists, to whom I now wish to convey an expression of my deep appreciation and of my best wishes for the progress of their researches in other countries. "

Each of the members of the Commission is responsible for a section or sections of the final report, which are as follows:

1. A report on the new sleeping-sickness focus in Ikoma — by Professor F. K. KLEINE.

2. A series of studies of the bionomics of the polymorphic trypanosomes of man and ruminants — by Dr. H. Lyndhurst DUKE.

3. The possible chemotactic influence of the salivary glands of *Glossinæ* in the development of the polymorphic trypanosomes — by Drs. H. Lyndhurst DUKE, G. LAVIER and M. M. PRATES.

4. (*a*) Notes on the microscopic diagnosis of trypanosomiasis;
   (*b*) Posterior nuclear forms of polymorphic trypanosomes;
   (*c*) The reaction of Gaté and Papacotas in the diagnosis of trypanosomiasis;
   (*d*) Cultivation of polymorphic trypanosomes;
   (*e*) The precipitin reaction applied to the blood in the alimentary canal of *Glossina*;
   (*f*) An account of the manner in which experiments with *Glossinæ* are carried out in the laboratory at Entebbe;

— by Dr. M. M. PRATES.

5. Seven papers dealing with anatomopathological and serological observations of trypanosomiasis — by Dr. M. PERUZZI.

6. The epidemiology of sleeping-sickness in *G. palpalis* and *T. gambiense* regions (with sundry therapeutic observations) — by Dr. L. VAN HOOF.

7. A paper not yet received — by Dr. G. LAVIER.

In addition, we have received from Dr. Duke the following general recommendations for the control of sleeping-sickness in African Dependencies signed by Professor KLEINE, Dr. VAN HOOF and Dr. DUKE:

In the course of studies undertaken in the field during a number of years past, including the epidemiological work done on this Commission, Professor KLEINE, Dr. VAN HOOF and Dr. H. L. DUKE have collected a number of observations and facts about human trypanosomiasis — some already published in diverse journals — from which may be drawn certain essentially practical conclusions about the control of the disease, both from the point of view of the administrator and of the medical authorities. The following is a brief resume of the recommendations.

(1) The movement of natives ought to be controlled.

This implies:

(*a*) A census, carried out by the Administration, of all natives.

(*b*) The institution and employment of an identity book or card for each native, in which can be included a medical passport, to which reference will be made later on.

(*c*) Delimitation of areas entry into and departure from which are contingent on the possession by the native of a visa from the Medical Authorities stating that he is free from trypanosomiasis.

(*d*) The formulation and promulgation of a law or laws giving force to all these regulations. It is desirable, and in French and Belgian territory has been proved practicable and efficacious, that the Medical Authorities should, in certain circumstances, be endowed with judiciary powers as far as concerns the enforcing of this legislation.

(*e*) An international agreement, between the administrations of all countries in which human trypanosomiasis occurs, about the control of the disease on frontiers, an agreement similar to those adopted to control epidemic infectious diseases such as plague and smallpox.

*Note.* — Actually an agreement of this kind already exists on the frontier between the Anglo-Egyptian Sudan and the Belgian Congo, where the administrative authorities hold mixed tribunals, composed of English and Belgian officials, to judge infractions of the local rules that govern native movements across this frontier.

(*f*) The establishment of observation-posts where the examination and control of visas can be carried out.

*Note.* — These observation-posts will be, evidently, all administrative or commercial centres where native traffic lines converge : the departure and arrival points of caravans; centres for labour recruiting activities; ports; Customs posts, etc. The most difficult problem is perhaps that presented by fishermen on the lakes and rivers. Experience acquired on Lake Victoria suggests the establishment of special markets where fish must be brought for sale, and where medical examination of the fishermen can be carried out. This measure would allow the administration to concentrate the supply of fish in places where it is most in demand for increasing populations or collections of native labour; to regulate prices and at the same time facilitate medical control.

(2) The census of infected natives ought to be thorough and complete.

To ensure this aim there must be:

(*a*) An adequate control over the movements of natives, as already indicated above.

(*b*) An adequate medical personnel employing the accepted methods of diagnosis.

(*c*) A medical passport for every native, on which can be periodically recorded the results of examination for human trypanosomiasis.

(*d*) Legal means of compelling natives to submit to medical examination and treatment.

(3) Natives infected with trypanosomiasis ought to be treated.

Without insisting on the method of treatment, which will vary according to local circumstances, infected natives ought to be compelled to submit to treatment.

This implies:

(*a*) If necessary, confinement in a hospital.

(*b*) Withdrawal of travel-permit and medical passport *pro tem.*

(*c*) After treatment, careful record of visits, treatment received, etc. This is especially important in the case of natives who come up at intervals for treatment but who are not confined to hospital.

(4) The evacuation of heavily infected zones.

This is an urgency measure, and only to be applied in special cases; such are: epidemic extension in an endemic focus; impossibility of breaking contact between fly and man; insufficiency of medical and administrative personnel to carrry out prophylactic measures, or of natives to set on foot and maintain sanitary measures.

Before resorting to this measure, organised concentration of population should be tried in carefully chosen areas, where contact between fly and man can be eliminated or adequately controlled and reduced.

(5) Clearing measures are generally very costly, and, unless carried out under the control of trained entomologists, are of little permanent benefit. In *palpalis* regions, such measures should be restricted to much-frequented places, and they must be thorough and well maintained, otherwise they are useless.

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LIST OF APPENDICES.

Page

Appendix 1:
Draft Rules of Procedure for the Advisory Council of the Eastern Bureau . . . . . 95

Appendix 2:
Letter addressed to the Sanitary Administrations. . . . . 96

Appendix 3:
Replies received from Sanitary Administrations. . . . . 97

Appendix 4:
International Health Course of Paris. . . . . 99

Appendix 5:
List of League of Nations Fellows . . . . . 101

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**Appendix 1.**

DRAFT RULES OF PROCEDURE FOR THE ADVISORY COUNCIL OF THE EASTERN BUREAU OF THE LEAGUE OF NATIONS HEALTH ORGANISATION.

*Article 1.*

The Advisory Council shall be constituted and shall exercise its powers in conformity with the provisions of the resolutions of the Council of the League of Nations.

*Article 2.*

The Council shall elect from among its members a Chairman and Vice-Chairman for a period of one year.

The Council shall hold at least one session each year, ordinarily in the middle of February, the date being fixed after consultation between the Chairman of the Council and the President of the Health Committee.

*Article 3.*

The Chairman shall convene the meetings of the Council. He shall be under the obligation to do so when the Health Committee of the League of Nations so decides, or if not less than three members of the Council request that a meeting be held. Notices of a meeting shall be sent out by the Secretary-General of the League of Nations and, except in cases of emergency, shall be despatched at least one month before the beginning of the session.

*Article 4.*

The agenda of the session shall be attached to the notices.

Any member of the Council may notify the Director of the Bureau that he proposes to ask for the inclusion of a particular question in the agenda of the session. The Council shall decide as to the inclusion of such question in its agenda by a two-thirds majority of the members present.

In the course of a session, the Council may also decide by a two-thirds majority of the members present to add a question to its agenda.

*Article 5.*

The report of the Director of the Bureau, and any reports concerning questions placed on the agenda of the sessions of the Council shall, so far as possible, be sent so that members receive them a fortnight before the beginning of the session.

*Article 6.*

The reports of the Director of the Bureau to the Advisory Council must be approved by the Council and such approval must be recorded in the Minutes of the session.

*Article 7.*

All decisions of the Council, with the exception of those referred to in Article 4, shall be taken by a majority of the members present at the meeting.

If the voting should be equal, the proposal shall be regarded as rejected.

Any reasoned statement of opinion by a minority consisting of one or more members of the Council shall, if the minority in question so desires, be inserted in the Minutes and communicated to the Health Committee of the League of Nations, together with the resolutions which have been adopted.

*Article 8.*

The Director of the Bureau shall transmit as rapidly as possible to the Director of the Health Section of the League of Nations Secretariat the resolutions adopted by the Council and the Minutes of the meetings, for communication to the Health Committee of the League.

Resolutions of the Council must obtain the approval of the Health Committee of the League before they can be acted upon by the Director of the Bureau.

*Article 9.*

The Council may recommend to the Health Committee of the League of Nations the constitution of sub-committees, composed exclusively of experts, for the study of questions within the scope of the work of the Eastern Bureau. The decision of the Health Committee whereby a sub-committee is appointed shall define its powers and composition. The reports and proposals of sub-committees shall be brought as speedily as possible to the notice of the members of the Council and of the Health Committee of the League and shall be submitted for the consideration of the Council at its next session or, in urgent cases, to its Chairman. Expert sub-committees shall be convened by their Chairmen through the intermediary of the Secretary-General of the League of Nations.

*Article 10.*

It shall be the duty of the Eastern Bureau of the Health Section of the League of Nations to make such arrangements as may be necessary for the work of the Council and of expert sub-committees and for the examination of questions placed on their agenda, and to carry out the technical work involved by any decisions taken by these bodies within the limits of their competence. The Council and its expert sub-committees may, if they see fit, authorise their members to undertake, on their own responsibility and in their respective countries, such researches and investigations as may be required for the work of the sub-committees concerned.

In the event of expenditure being involved by such researches and investigations, advances may be granted to these members within limits approved by the Health Committee and after agreement with the Secretary-General of the League.

*Article 11.*

In the intervals between the Council's sessions, the Director of the Bureau shall keep the Chairman regularly informed of the progress of the work and of any proposals received by him. He shall draw up each year a general report on the work of the Bureau and this report shall be submitted to the Council in accordance with the provisions of Articles 5 and 6.

*Article 12.*

The present rules of procedure may be modified in the course of any session of the Health Committee of the League of Nations, by a majority of the members present.

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**Appendix 2.**

Letter addressed to the Administrations associated with the Singapore Bureau regarding Duties under the International Sanitary Convention.

Geneva, March 30th, 1927.

The Permanent Committee of the Office International d'Hygiène publique in Paris, in a note (copy of which I enclose) transmitted certain suggestions as to the work which might be entrusted to the Singapore Bureau of the League of Nations Health Organisation, in order that it might fulfil — for the countries within its area and according to the rules laid down by the Committee of the Office and under the responsibility of the Office — certain of the duties which were entrusted to the Office by the International Sanitary Convention of 1926 with the reservations contained in the provisions of the last paragraph of Article 7.

The Health Committee, having referred these suggestions to the Advisory Council of the Singapore Bureau as well as to the Bureau itself, decided at its session held from February 14th to 18th, 1927, that the Singapore Bureau might, in conformity with the suggestions of the Office international, be charged with the duties entrusted to the Office by Articles 1, 2, 3, 6, 9, 12, 14, 16, 21, 28, 50 and 57 of the Convention.

The Health Committee further decided to ask the sanitary administrations participating in the work of the Bureau if they would be prepared to transmit the notifications and information described in the above-mentioned Articles by means of the Singapore Bureau.

This enquiry is to be made in view of the discussions now taking place between the Health Committee of the League and the Permanent Committee of the Office international regarding the manner in which the Singapore Bureau might fulfil the duties referred to. It is obvious that an arrangement of this nature would not come into force until the Sanitary Convention had been ratified.

I should accordingly be grateful if you would inform me at an early date of the views of your administration on this subject.

(*Signed*) L. RAJCHMAN,
*Medical Director.*

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**Appendix 3.**

REPLIES RECEIVED FROM ADMINISTRATIONS ASSOCIATED WITH THE SINGAPORE BUREAU REGARDING DUTIES UNDER THE INTERNATIONAL SANITARY CONVENTION.

*Hong-Kong.* — The Hong-Kong Government has informed the Secretary of State to the Colonies of its inability to adhere to the Paris Convention for the reasons set forth in a letter, copy of which I attach. The Hong-Kong Government agrees, however, to forward to the Singapore Bureau the information required by Articles 1, 2, 3, 6, 9, 12, 14, 16, 21, 28, 50 and 57 of the Convention.

*Macao.* — With reference to your letter of April 1st addressed to His Excellency the Governor of this Colony, I have the honour to state that we are willing to transmit through the Singapore Bureau the notifications and information referred to in the Articles of the International Sanitary Convention mentioned in your letter.

*Madagascar.* — The Colony of Madagascar is willing to transmit to the Office international d'hygiène publique by way of the Singapore Bureau the notifications and information demanded by Articles 1, 2, 3, etc., of the International Sanitary Convention of 1926.

*Iraq* (Reply transmitted by the Foreign Office). — In accordance with the desire expressed by the Government of Iraq, I am to inform you that the Iraq Health Directorate is prepared to transmit to the Singapore Bureau the required notifications and information described in Articles 1, 2, 3, etc., of the International Sanitary Convention of 1926.

*Philippines.* — This office is agreeable to furnishing information through the Eastern Bureau provided the Sanitary Convention is ratified by the United States Government.

*North Borneo.* — I am prepared to transmit the relevant notifications and information required by certain articles of the International Sanitary Convention, 1926, by means of the Singapore Bureau.

*Tanganyika.* — This department is prepared to render the returns and information required under the Convention of 1926 to the Singapore Bureau.

It is understood that the notifications prescribed by the Convention will be dealt with, and information distributed by the Singapore Bureau, and that this Government will not be required to inform other Governments, except by notifying their Consulates here, of any outbreaks of infectious disease.

*New Zealand* has also informed us that they will reply, as soon as they have received instructions in that direction from the Ministry of Health, London.

*French Somaliland.* — French Somaliland has agreed since 1925 to transmit to the Singapore Bureau information concerning sanitary conditions.

*Mozambique.* — I have the honour to acknowledge the receipt of your letter of April 1st last in which you ask for my opinion concerning the rôle which the Singapore Bureau might play in carrying out the provisions of the International Sanitary Convention of 1926. I have also received a letter from the Bureau of Singapore, evidently based on the suggestions of the Health Committee, asking me to extend the scope of the weekly telegrams and their monthly confirmation with such particulars referred to in paragraphs 1 to 9 of Article 2. I have just despatched the first communication of this kind, relating to the month of April, thus showing that I am in full agreement with the suggestions that have been made by the Health Committee.

*South Africa.* — I have no doubt that this Government will be pleased to fall in with whatever arrangements regarding this matter are finally agreed to between the Office international d'hygiène publique and the Health Organisation of the League of Nations.

It is not considered that the Union of South Africa is, strictly speaking, within the "Eastern area" covered by the Singapore Bureau; it is rather an intermediate country between the "Eastern area" and the West. As a matter of fact, its transport associations are closer with Europe and the West than they are with the East.

As you are aware, we send a weekly health report, by cable and in code, to the International Health Intelligence Bureau at Singapore and we receive from that Bureau, by cable, its weekly Bulletin for the "Eastern Area". We also have an arrangement under which special notifications

regarding outbreaks of formidable epidemics, diseases or similar matters are transmitted by cable and in code to the Bureau and also to the High Commissioner for the Union of South Africa in London, who transmits copies thereof to the Ministry of Health, London (by letter) and to the Secretary of the Office international d'hygiène publique, Paris, and the Secretary, Health Organisation, League of Nations, Geneva (both by telegram). This was the procedure followed in connection with the recent case of pneumonic plague discovered on the *Armadale Castle* at Cape Town.

Under all circumstances, it is considered that the procedure indicated in the preceding paragraph, namely, the transmission of notifications both to the Singapore Bureau and to the responsible authorities in Europe, via the High Commissioner for the Union of South Africa in London, should be continued.

*Australia.* — Inasmuch as the Commonwealth Government has already entered into the arrangement made at the time of the establishment of the Singapore Bureau to transmit information regarding certain diseases through that Bureau, it would be obviously advantageous and economical to utilise this route for the transmission of such information to the International Office of Public Health in Paris. This relates particularly to the notification of the occurrence and course of the diseases dealt with in the Convention.

With respect to the other information as to administrative procedure and course of events, there does not appear to be any material consideration which would point to an advantage to be derived from notification direct to the Office international. It is considered therefore that one channel for all information in the indicated Articles of the Convention should suffice and should be satisfactory.

So far as the Commonwealth is concerned, this Department is willing to forward all information required by the Articles above mentioned to the Singapore Bureau, and will be prepared to adopt the attitude that the forwarding of such information to the Singapore Bureau fully discharges its obligations under the International Convention.

*Straits Settlements.* — His Excellency the Governor of the Straits Settlements authorised me to inform you that this Government agrees to the transference of duties from the Office international to the Singapore Bureau as proposed in your letter.

Further, this Government will send to the Singapore Bureau the notifications and information required by Articles 1, 2, 3, etc., of the International Sanitary Convention of 1926.

*India.* — The Government of India are prepared to transmit, through the Singapore Bureau, the communications provided for in Articles 1, 2, 3, 4, 6, 12 and 16 of the Convention but consider that the information required under Articles 9, 14, 28, 50 and 57, as well as that relating to special agreements mentioned in the second paragraph of Article 21, should for the present be sent direct to the Office international d'hygiène publique, Paris, since in their opinion, the sending to Singapore for onward transmission of the information referred to in the six last-mentioned Articles might involve unnecessary delay.

*British Somaliland.* — I am to state in general terms that I am anxious to render any reports desired and am now sending a monthly report to the Singapore Bureau.

*China.* — In reply to the letter of April 1st, 1927, of the Health Section of the League of Nations to the Chinese representative on the Council of the League, the Permanent Office of the Chinese delegation to the League is now authorised by the Waichiaopou at Peking to say that the Chinese Health authorities will have no objection if the Singapore Bureau should be charged with the duties entrusted to the Office international d'hygiène publique in Paris by Articles 1, 2, 3, etc., of the International Sanitary Convention.

*Siam.* — In reply to your letter of March 29th, 1927, in which you enclosed a copy of note from the Permanent Committee of the Office international d'hygiène publique in Paris, relative to certain duties which might be entrusted to the Singapore Bureau of the League of Nations Health Organisation, I would state that as yet Siam has not signified adherence to the Sanitary Convention of 1926, but, as a Sanitary Administration participating in the work of the Bureau, this Department will be prepared to transmit by means of the Bureau the notifications and information in conformity with the decision of the Health Committee.

*Fiji.* — In reply to your letter of July 8th, 1927, I have the honour to inform you that this Administration is agreeable to submit notifications and informations under the articles referred to through the Singapore Bureau.

2. It may be mentioned, however, that the Government of Fiji is not at present, in the opinion of the Medical Officer of Health, in a position to comply with the requirements of Articles 6, 14, 28 (last paragraph) and 51 (*e*) and (*f*), which latter should affect notifications under Articles 2, 6, 12 and 14.

*Federated Malay States.* — I have the honour to acknowledge receipt of your letters of March 29th and July 11th, 1927, regarding a suggestion by the Permanent Committee of the Office international d'hygiène publique in Paris as to the work which might be entrusted to the Singapore Bureau of the League of Nations Health Organisation and to inform you that the Government of the Federated Malay States agrees to these proposals.

*Kwantung.* — I have the honour to acknowledge receipt of your two letters dated March 30th and July 8th, 1927, requesting the views of this Government regarding certain suggestions as to the work which might be entrusted to the Singapore Bureau of the League of Nations Health Organisation, and to state in reply thereto that this Government is not in a position to express its views direct to your enquiry and therefore your communications have been transmitted to the Japanese Foreign Affairs Department for its consideration.

## Appendix 4.

### International Health Courses of Paris.

1. *Programme of the Courses.*

I. *General Epidemiology.*

M. Léon Bernard, Director of the Institute of Hygiene of the Faculty of Medicine of Paris. The Evolution of Hygiene and Preventive Medicine. The Relationship of Medical Officers of Health and the General Medical Practitioners.

M. Madsen, Professor at the University of Copenhagen. The Seasonal Prevalence of Epidemic Disease.

Mr. Knud Stouman, of the Epidemiological Intelligence Service of the League of Nations. The Geographical Distribution of Epidemics. (Two lectures.)

M. Gustave Pittaluga, Professor at the University of Madrid. Epidemiology from the Biological Point of View.

Mr. S. P. James, M.D., D.P.H., Technical Adviser in Tropical Diseases to the British Ministry of Health. Tropical Diseases in Europe. (Two lectures.)

II. *New Methods of Prophylaxis in the Treatment of Infectious Diseases.*

M. Bordet, Professor at the Free University of Brussels. General Principles of Immunology.

M. Ramon, Chief of Service at the Pasteur Institute, Paris. The Prophylaxis of Diphtheria and Tetanus.

M. Robert Debré, Assistant Director of the Institute of Hygiene, Paris. The Prophylaxis of Measles and Scarlet Fever. (Two lectures).

M. Madsen. The Prophylaxis of Whooping-cough.

M. Calmette, Assistant Director of the Pasteur Institute, Paris. The Prophylaxis of Tuberculosis.

M. Besredka, Professor at the Pasteur Institute. Cholera, Dysentery and Typhoid — Vaccination by Mouth

M. Levaditi, Chief of Service, Pasteur Institute.

M. Madsen. International Standardisation of Sera and Biological Products.

III. *General Prophylaxis.*

M. Henri Thierry, Inspector-General of the Health Services of the City of Paris. The Theory and Practice of Disinfection. (Two lectures.)

M. Hahn, Professor at the University of Berlin. Permanent Organisation for the Prevention of Infectious Disease.

IV. *Bio-Chemistry.*

M. Saiki, Director of the Institute of Nutritional Research of the Government of Japan. Food Metabolism; Applications to Health based on the Work of the Japanese School. (Three lectures.)

M. C. Funk, Professor at the School of Hygiene, Warsaw. Vitamines. (Two lectures.)

V. *Biometry.*

M. Lucian March, Honorary Director-General of Statistics of France. Statistical Methodology. (Three lectures.)

M. Methorst, Director of the Central Bureau of Statistics of the Netherlands. The Application of Statistics to Demography and Public Health. (Three lectures.)

VI. *Social Hygiene.*

M. R. Debré. Infant Welfare Measures taken to reduce Infant Mortality.

M. Schlossmann, Professor at the University of Dusseldorf. Hospital Provision for Infants. (Two lectures.)

Sir Leslie Mackenzie. The Hygiene of Children of School Age. (Two lectures.)

M. Chailley-Bert, of the Faculty of Medicine, Paris. Physical Education.

Professor Winslow, of the Yale University (U.S.A.). Personal Hygiene.

M. L. Bernard. The Scientific Principles of the Anti-Tuberculosis Campaign. Social Prophylaxis of Tuberculosis. Legal Measures against Tuberculosis.

M. Gougerot, of the Faculty of Medicine of Paris. The Prophylaxis of Venereal Diseases.

M. Jean Lépine, Dean of the Faculty of Medicine of Lyons. The Prevention of Mental Diseases.

M. René Sand, Secretary-General of the League of Red Cross Societies. Popular Education in Hygiene.

M. Winslow. District Nurses and Public Health. (Heads of schools of nursing and visiting nurses attended this lecture.)

M. Johan Kuhn, of Copenhagen. The Practice of Sickness Insurance based on Danish Experience. (Two lectures.)

M. Foramitti, Deputy-Director of the Austrian Federal Health Service. The Relation between Social Insurance and Preventive Medicine. (Two lectures.)

VII. *Industrial Hygiene.*

M. Carozzi, Chief of the Health Section of the International Labour Office. The Organisation of Industrial Labour and its various factors; New Sources of Danger in Industry. (Three lectures.)

M. Glibert, Inspector-General of Labour in Belgium. The Sanitary Control of Labour.

VIII. *Public Health.*

M. Forestier, Supervisor of Walks and Gardens of the City of Paris. Principles of Urbanism.

M. Gini, Professor at the University of Rome; President of the National Bureau of Statistics of Italy. The Relation of Sanitary Problems to Movements of Population.

Mr. Selskar M. Gunn, formerly Professor at the Institute of Technology of Boston. General Considerations of Public Health Administration. The Respective Value of the Different Types of Public Health Activity. (Two lectures.)

M. Heyermans, Director of the Health Service, Amsterdam. Municipal Health Administration.

Dr. Boudreau, of the Health Section of the League of Nations, formerly Chief of the Health Service of the State of Ohio (U.S.A.). Rural Health Administration.

M. Chenevier, General Secretary of Public Welfare, Paris. Hospital Provision and Public Health.

M. Velghe, Director-General of Public Health, Belgium. The Workman's Dwelling.

Professor Winslow. The Sterilisation of Drinking Water. The Purification of Waste Waters. Ventilation. (Four lectures.)

Dr. L. Rajchman, Medical Director of the Health Section of the League of Nations. Health Organisation of the League of Nations.

M. Pottevin, Director of the Office international d'hygiène publique. International Sanitary Conventions.

Dr. Léon Bernard. International Sanitary Co-operation.

2. *Discussions which took place during the Afternoons.*

M. Léon Bernard. Discussion at the International Institute of Intellectual Co-operation.
M. Chénevier. Hospital Provision and Public Health.
M. Funck. Vitamins.
M. Gini. The Relation of Sanitary Problems to Movements of Population.
M. Gougerot. The Campaign against Venereal Diseases. Exhibition of Films.
M. Heyermans. Municipal Health Administration.
M. March. Statistical Methodology.
M. Methorst. The Application of Statistics to Demography and Public Health.
M. Nègre. Tuberculosis.
M. Rajchman. International Public Health.
M. Saiki. Development of Certain Points treated during his Lectures.
M. Stouman. Questions relating to Nutrition Problems.
M. Tanon. General Information on the Course.

3. *Programme of Visits to Health Institutions and Organisations.*

I. *Hospitals and Dispensaries.*

Tuberculosis Organisations. (Visits made under the direction of Professor Léon Bernard.)
Léon Bourgeois dispensary — Hospital — Preventive crèche: Laënnec Hospital, 42, rue de Sèvres, Paris.

Anti-tuberculous Sanatorium.
Sanatorium at Bligny par Briis-sous-Forges (Seine et Oise) belonging to the Œuvre des Sanatoriums populaires de Paris.

Prevention of Tuberculosis among Infants.
Visit to the La Ferté-Saint-Aubin centre of the Œuvre du Placement Familial des Tout-Petits.

Hôpital Saint-Louis: 40, rue Bichat, Paris.
General inspection of the old hospital, Dr. Jules Renault's modern crèche, Skin Diseases Museum.

Modern Hospital for Infectious Diseases.
The Pasteur Hospital: 212, rue de Vaugirard, Paris. (Visit made under the direction of M. Martin, Chief Medical Officer of the Hospital.)

The Anti-Venerean Prophylactic Institute of Dr. Vernes.
60, Boulevard Arago, Paris.

The Radium Institute.
26, rue d'Ulm, Paris.

The Pasteur Institute.
25, rue Dutot, Paris. (Conducted by Dr. Nègre.)

The Pasteur Institute of Garches. (Visit made under the direction of M. Ramon: preparation of serums.)

The Institute for the Control of Vaccines.
16, rue Bonaparte, Paris VI^e. (Course given by M. Camus, Director of the Vaccine Institute.)

Vaccination Service of the City of Paris.
Obstetrical Organisation for the Prevention of Venereal Diseases and Tuberculosis.
Obstetrical Clinic Baudelocque, 125, Boulevard de Port-Royal, Paris.

II. *Public Health Organisations.*

School Hygiene Centre. (Work of the Society " L'Hygiène par l'Exemple ".) Dr. Vitry's lecture on the work of medical students at rue Vauvenargues.
Rue Rouelle, Paris.
Physical Education Centre.
Joinville (Seine) School.
Industrial Hygiene: Two visits to factories under the direction of Industrial Hygiene Inspectors.
Disinfection Service of the City of Paris.
6, rue des Récollets, Paris.
Destruction of Refuse.
Incinerating Plant at Ivry (Seine).
The Sewage System of the City of Paris.
Sewage disposal at Achères and biological purification at Carrière-Triel. (Under the direction of M. Thierry.)
Water Supply of the City of Paris.
1. Chlorination and the ozone plant at St. Maur.
2. The catchment area of the Loing and of the Lunain at Fontainebleau.
Garden City of Arcueil-Cachan.
The Organisation of the Municipal Statistics.
The Statistical Office at Paris: Avenue Victoria, Paris.
The National Bureau of Social Hygiene.
26, boulevard Vaugirard, Paris.
Created with the assistance of the Rockefeller Foundation at the Ministry of Social Hygiene.

III. *Presentation of Films in connection with the Various Organisations of Social Hygiene.*

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**Appendix 5.**

League of Nations Fellows for the Malaria Courses and Field Work, 1927.

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| *Armenia:* | The Chief of the Epidemiological Section of the Tropical Institute Erivan. |
| *France:* | Two doctors attached to the Laboratory of Parasitology, Faculty of Medicine. |
| *(Indo-China):* | One doctor of the Medical Service of Indo-China. |
| *(Madagascar):* | One doctor of the Colonial Medical Service. |
| *Persia:* | One medical officer. |
| ,, | One medical officer. |
| *Roumania:* | One doctor of the Faculty of Medicine, Bucharest. |
| *Kingdom of the Serbs, Croats and Slovenes:* | One doctor of the Institute of Hygiene at Zagreb. |
| ,, | The Acting-Director of the Malaria Station, Stip. |
| *Spain:* | One doctor of the Malaria Hospital, Navalmoral de la Mata. |
| ,, | The Director of the Anti-malaria Dispensary of Amposta-Aldea, Perello. |
| *Syria:* | The Medical Officer in charge of anti-malaria campaign in the State of Grand Liban. |
| *Union of South Africa:* | One Medical Officer of Health. |
| *U.S.S.R.:* | One Assistant at the Bacteriological Institute of Kiew. |

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C.H.663.

**ANNEX 144 a.**

## EPIDEMIOLOGICAL INTELLIGENCE CONFERENCE HELD AT GENEVA ON OCTOBER 25TH AND 26TH, 1927.

*Report of the Conference, submitted to the Health Committee on October 31st, 1927.*

I.

The Conference considers that the recent changes effected in the *Monthly Epidemiological Report*, whereby the tables are given according to diseases instead of being shown for each country separately, and which permits of devoting more space to any individual disease at the time of its greatest prevalence, have added considerably to the usefulness of this publication. The present

practice of giving a summary of the epidemiological situation in regard to diseases of special interest at the time of issue, both in tables and text, should be continued.

To facilitate reference to these summaries, the Conference recommends that an index be appended to each number.

2.

The Conference considers that the *Weekly Record*, which should be regarded as the central bulletin for the world's epidemiological intelligence, should continue to publish all the relevant intelligence of interest to public health administrations.

It is understood that the official communications which will be determined by the Office international d'hygiène publique according to the requirements of the case and which should be sent to the Governments signatory to the Convention will be published in the name of the Office on the first page of the *Weekly Record*.

The best form of presentation of the information contained in the *Record* would consist:

(*a*) In grouping all the information concerning the disease under one heading;
(*b*) In indicating in each case the source of information;
(*c*) In indicating the date of the last occurrence in the list of ports reported from Singapore as free from conventional diseases.

The second part of the *Weekly Record* should contain epidemiological information of immediate interest, in addition to that concerning conventional diseases.

In the third part, a bulletin received from the regional bureaux would be reproduced, if this be thought advisable.

The present practice should be followed in publishing no information unless either received directly or obtained on invitation from national sanitary administrations.

3.

The Conference suggests that the Health Section should collect information regarding the periods covered by reports issued from the various epidemiological information centres in view of an eventual co-ordination of these periods.

4.

The Conference considers it most desirable to enlarge the scope of the AA Cable Code of the Singapore Bureau so that it might be utilised for the telegraphic correspondence of regional bureaux and of the different public health administrations in all parts of the world. This would entail not only an addition to geographical names contained in the present code but an extension of the part dealing with disease prevalence, administrative titles and such-like subjects.

The Conference recommends that the Health Section submit its suggestions for an extension of the code along these lines to the administrations specially interested in the matter, inviting their consideration and observations. On receipt of replies, it will be possible to estimate the size of the enlarged volume and consequently to decide whether a two-or three-letter code system should be employed.

5.

The Conference recognises the advantages of establishing a routine in using wireless transmission of epidemiological information.

It recommends that the Health Organisation should make a study of the advantages and disadvantages of transmitting by wireless, in code and in clear respectively.

6.

In view of the present low incidence of smallpox in countries of the European continent, the Conference suggests to the Health Committee the advisability of making a special and detailed study of cases occurring in the several countries. The Conference suggests that the collaboration of investigators nominated by national health administrations be secured and that, for the drafting of the uniform plan of enquiry, the advice of experts in certain countries who have acquired special experience in this should be obtained.

It is hoped that, in case this suggestion be approved by the Health Committee, the Health Section will be in a position to prepare, for the April session of the Committee, practical suggestions, should any such emerge from the epidemiological enquiry.

* * *

The following documents have been circulated to the members of the Conference and are available for members of the Health Committee on demand:

C.H. 620. Description of the Epidemiological Intelligence Service of the Health Section, the nature of the information which it receives, its tabulation and the form of its presentation in the weekly, monthly and annual *Epidemiological Reports*. Also notes regarding the AA Cable Code and a list of ports prepared by Dr. Brooke and intended to serve as a basis for the proposed extension of the code.

C.H. 636. Note on the AA Cable Code by the Statistician of the Singapore Bureau.

C.H. 648. Short summary of the wireless experience of the Singapore Bureau by the Director of the Bureau.

C.H. 642. International Notification of Smallpox in Europe.

**ANNEX 144b.**

# REPORT ON THE WORK OF THE FIRST SESSION OF THE JOINT COMMISSION ON HEALTH INSURANCE

(Joint Commission of Experts for the Study of the Relationship between Public Health Services and Health Insurance Organisations)

*Held at Geneva on April 11th and 12th, 1927.*

During its ninth session, in February 1927, the Health Committee adopted the following resolution :

"The Health Committee :

"(1) Decides to set up a Commission of Experts to consider the most effective methods of collaboration between Health Insurance Organisations and the Public Health Services, half of the members of such Commission to represent the Public Health Services, the remaining half to represent Health Insurance Organisations ;

"(2) Considers that the members of the Commission representing the Public Health Services should be selected by the Health Organisation, which is the normal agency of collaboration between such services, and invites its Bureau to make these nominations. The members of the Commission representing Health Insurance Organisations should be selected by the Governing Body of the International Labour Office, which acts on their behalf ;

"(3) Decides that the scope of work of the Commission shall relate to a study of the possibilities of collaboration between the Public Health Services and the services of the Health Insurance Organisations ;

"(4) Proposes that the Commission of Experts shall be constituted and convened at as early a date as possible ;

"(5) Suggests that the Commission of Experts should take no definite decisions before the conclusion of the International Labour Conference to be held in Geneva during May and June 1927, as the subject of health insurance will be considered by that Conference ;

"(6) Proposes a joint secretariat for the Commission of Experts composed of members of the Health Section of the Secretariat of the League of Nations and members of the Social Insurance Services of the International Labour Office, headed on the one hand by the Medical Director of the Health Organisation and on the other by the Chief of the Division of Research of the International Labour Office."

Accordingly, the following experts in Public Health Administration and Health Insurance met at Geneva on April 11th and 12th, 1927 :

*Members nominated by the Health Committee of the League of Nations :*

*Chairman* : Sir George Newman, Chief Medical Officer, British Ministry of Health.

Dr. E. Bellencontre, President of the Association générale des Médecins de France.

Dr. C. Hamel, President of the Reichsgesundheitsamt.

Dr. A. Foramitti, Deputy Director of the Federal Public Health Service of Austria.

Professor Kitashima, Chairman of the Council of the Japanese Medical Association.

Dr. J. Kuhn, Editor-in-chief of the *Ugeskrift for Laeger*.

*Members nominated by the Governing Body of the International Labour Office :*

Dr. A. Grieser, Director in the Ministry of Labour (Germany).

M. A. Jauniaux, Senator, Secretary-General of the Union nationale des fédérations de mutualité socialistes (Belgium).

M. L. Olivier, member of the Executive Committee of the Fédération nationale de la mutualité (France).

M. K. Osiowski, Director of the Central Union of Health Insurance Funds (Poland).

Mr. E. Potts, Honorary Secretary of the National Association of Insurance Committees (Great Britain).

Dr. L. Winter, former Minister for Social Welfare, Vice-President of the Central Union of Health Insurance Funds (Czechoslovakia).

I. The Chairman of the Commission described the general principles of preventive medicine with particular reference to two of its aspects — Public Health and Health Insurance (document C.H. 584). He drew attention to a memorandum describing the history of the present study and the terms of reference of the Joint Commission (document C.H. 579).

Each member of the Commission then presented his views on the work of the Commission and described briefly the situation in his own country in regard to the relationships which had been established between the Public Health Services and Health Insurance Organisations in the prevention of disease.

II. After summarising the results of the discussion, the Chairman asked the Commission whether it was prepared to discuss and to take action upon the following questions, which would have to be answered before further progress could be made :

(*a*) Is there general agreement that *future* co-operation and co-ordination are desirable between Public Health and Social Insurance in regard to preventive medicine ?

Should the Commission decide to answer this question in the affirmative, the Chairman indicated that the following question would be presented :

(*b*) How shall we improve matters ?

III. The Commission unanimously decided to answer the first question in the affirmative and proceeded to a discussion of its programme and method of work. The Chairman submitted to the Commission the following plan, which he suggested as a practical way of procedure :

(1) It would be desirable for some appropriate surveys of certain aspects of both services to be made in selected countries.

(2) Such surveys to be supervised by members of the Commission as far as practicable, working in pairs — one representative of Public Health and one representative of Health Insurance.

(3) Any such enquiry to be carried out by competent investigators.

(4) Such enquiries not to be concerned with details of the different methods suitable to the circumstances of each country but with the general principles and the results

After discussion the Commission adopted the plan proposed by the Chairman and decided to divide its work into five subjects and to appoint a Sub-Commission to deal with each subject. The Health Section of the Secretariat of the League of Nations and the International Labour Office were requested to submit to each Sub-Commission the material already available. In the opinion of the Commission this material should be studied by the Sub-Committees and if the Sub-Committees decided that it was necessary to secure further information they should proceed : (1) to draw up a detailed plan of study ; (2) to select the countries in which such study should be made ; (3) to decide on the method of enquiry ; (4) if necessary, to make local investigations.

The Commission decided upon the following subjects for study :

i. Education of the insured in hygiene.
ii. Protection of maternity, infancy and the child of pre-school age.
iii. Prevention of tuberculosis.
iv. Prevention of venereal diseases.
v. Protection of the child of school age.

The Chairman called on the various members to indicate the particular subject which they desired to study in accordance with the procedure adopted. On the basis of these indications of the members' preferences, the following Sub-Committees were set up :

| | | |
|---|---|---|
| 1. | Education of the Insured in Hygiene. | Dr. Hamel.<br>M. L. Olivier. |
| 2. | Protection of Maternity, Infancy and the Child of Pre-school Age. | Dr. A. Foramitti.<br>Dr. L. Winter. |
| 3. | Prevention of Tuberculosis. | Dr. Hamel.<br>Professor Kitashima.<br>M. A. Jauniaux.<br>M. Osiowski. |
| 4. | Prevention of Venereal Diseases. | Dr. E. Bellencontre.<br>Dr. Grieser. |
| 5. | Protection of the Child of School Age. | Dr. Kuhn.<br>Mr. E. Potts. |

On the proposal of the Chairman, the Commission decided that the Medical Director of the Health Section of the Secretariat of the League of Nations and the Chief of the Division of Research of the International Labour Office should be requested to prepare a brief report of the proceedings of the Commission, to which would be appended its resolutions, such report to be signed by the Chairman of the Joint Commission and communicated on behalf of the Joint Commission to the Health Committee of the League of Nations and to the Governing Body of the International Labour Office.

RESOLUTIONS.

The Joint Commission of Experts for the study of the relationships between the Public Health Services and Health Insurance Organisations decides :

1.

That further co-operation and co-ordination is desirable between Public Health and Social Insurance in regard to preventive medicine.

2.

That it is desirable to make appropriate surveys of certain aspects of both services in selected countries.

Such surveys are to be supervised by the members of the Commission, as far as practicable working in pairs one representative of Public Health and one representative of Social Insurance.

Any enquiry is to be carried out by competent investigators.

Such enquiries are not to be concerned with details of the different methods suitable to the circumstances of each country but into the general principles and the results.

3.

That the following subjects should be studied :

i. Education of the insured in hygiene.
ii. Protection of maternity, infancy and the child of pre-school age.
iii. Prevention of tuberculosis.
iv. Prevention of venereal diseases.
v. Protection of the child of school age.

4.

That the following Sub-Committees should be set up :

| | | |
|---|---|---|
| i. | Education of the Insured in Hygiene | Dr. HAMEL.<br>M. L. OLIVIER. |
| ii. | Protection of Maternity, Infancy and the Child of Pre-school Age. | Dr. A. FORAMITTI.<br>Dr. L. WINTER. |
| iii. | Prevention of Tuberculosis. | Dr. HAMEL.<br>Professor KITASHIMA.<br>M. A. JAUNIAUX.<br>M. OSIOWSKI. |
| iv. | Prevention of Venereal Diseases. | Dr. E. BELLENCONTRE.<br>Dr. GRIESER. |
| v. | Protection of the Child of School Age. | Dr. KUHN.<br>Mr. E. POTTS. |

5.

That the Medical Director of the Health Section of the Secretariat of the League of Nations and the Chief of the Division of Research of the International Labour Office shall prepare a brief report of the proceedings of the Commission, to which would be appended its resolutions, such report to be signed by the Chairman and communicated on behalf of the Commission to the Health Committee of the League of atNions and to the Governing Body of the International Labour Office.

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C.H. 634

## ANNEX 144c.

## REPORT ON THE CONFERENCE OF HEALTH EXPERTS ON INFANT WELFARE

*Held at Vienna on September 26th, 27th and 28th, 1927*

The following Health Experts on Infant Welfare met at Vienna on September 26th, 27th and 28th, 1927, at the University Children's Clinic :

Dame Janet CAMPBELL (Great Britain), *President*,
Professor A. COLLETT (Norway),
Professor R. DEBRÉ (France),
Professor C. GINI (Italy),
Professor E. GORTER (Netherlands),
Professor C. PIRQUET (Austria), Director of the Clinic,
Professor F. ROTT (Germany),
Professor E. NOBEL (Austria).

The following health experts from Latin America also attended the Conference :

Dr. J. B. Barreto (Brazil),
Professor Luis Calvo Mackenna (Chile),
Professor de Paula Souza (Brazil).

Doctor S. W. Monrad, of Copenhagen, Professor of Pediatry at the University, was the guest of the Conference.

The Conference adopted the following agenda :

I. Progress and continuation of the Enquiry on Infant Mortality :

(*a*) Principal causes (social, hygienic and clinical) of infant mortality observed up to the present in each of the districts chosen, and

(*b*) Practical methods of improving the present situation in the different districts.

II. Methods of immunising children against certain infectious diseases.

## I.

### The Field Enquiries on Infant Mortality.

The methods of conducting the field enquiries in the various countries were laid down at the two previous conferences of the health experts on infant welfare (C.H. 507 (1), C.H. 534). The Conference adopted a general report on the progress of the enquiry (Appendix 1) as an introduction to the discussions on the results of the field enquiries.

It was also agreed that the detailed discussion should be undertaken on the following lines :

I. — *Organisation and Difficulties Encountered.*

II. — *Preliminary Results.*

1. Social differences.
2. Geographical differences : differences of race,
   » » climate,
   » » customs.
3. Causes of death : Similarities and differences between the various districts.
   Special causes of death.
4. General value of the results.
5. Preventive methods : for each individual case.
   for each separate district.

III. — *Plans for the Preparation of the Final Report.*

The Conference decided that the present session represents an important step towards the end in view, but emphasises that the enquiries are still being prosecuted actively, and that any conclusions drawn can only be provisional, for the complete results will not be available until next year. In spite of the difficulties encountered in some of the districts, the progress of the enquiries has been more satisfactory than could have been expected and thanks to the collaboration of the various public and private agencies, including physicians, it has been possible to arrive at a satisfactory explanation of the exact cause of death in the large majority of cases.

Although any conclusions drawn from the incomplete material so far available must on that account be accepted with reserve, the interchange of experience has brought the following points into relief :

A. The experts agreed that the enquiries so far conducted had emphasised the importance of prematurity and dead birth as factors in infant mortality. The number of infant deaths and dead born due to difficulties of labour was relatively high in nearly all the districts, but particularly so in districts where the proper facilities for midwifery were inadequate and where maternal welfare organisations did not exist. An attempt had been made to determine the number of cases of prematurity and dead birth in which syphilis might be the determining cause.

Difficulties of a psychological nature had been encountered in the application of the Wassermann test in the majority of the districts, and the Conference, while emphasising the value of this method as an indication for the application of treatment and preventive measures, decided that special studies of this character should be restricted to certain districts where no great difficulties had been encountered.

The Conference emphasised the desirability of a study of hereditary syphilis in various countries from the point of view of infant mortality.

B. The provisional results of the enquiries had cast a considerable amount of doubt upon the statement so often repeated in the text-books that the mortality among illegitimate children was always higher than the mortality of legitimate children. In

a number of the districts, the experience acquired indicated that, if illegitimate children were the subjects of equally satisfactory welfare measures, they did not suffer any higher mortality than did legitimate children.

C. The Conference was struck with the marked divergences found in certain cases between the causes of death as certified to the civil authorities and the actual cause of death as determined by the enquiry (Appendix 2).

D. The comparatively large number of cases in which it was impossible to reconstruct a true diagnosis was also remarked in some of the districts. The Conference agreed that all doubtful diagnoses should be excluded from consideration when drawing conclusions from the completed enquiries and that, in rejecting diagnosis, the same criteria should be used in the different districts.

E. The Conference agreed that the lack of a standard list of causes of dead-birth rendered difficult any comparisons between the districts of the different countries and asked a sub-commission to prepare such a list, emphasising its provisional character and the fact that it was prepared only for the purposes of the present enquiry (Appendix 3).

### Plans for the Preparation of the Final Reports.

The Conference discussed the methods most likely to prove of value in the elaboration of the final reports and agreed on certain principles in regard to the application of the results.

In the opinion of the Conference, an attempt should be made in each case to determine what measures should be or might have been applied in order to prevent the infant's death. The advantage inherent in an enquiry of this character lies in the fact that the relation of certains factors to infant mortality has been shown, and it is possible on this basis to suggest the measures of prevention which should be applied.

It was recognised that the basic principles underlying the prevention of infant mortality were understood in all countries; the task of the Conference was to determine the order in which such measures should be applied and the importance of each such measure in relation to the peculiarities in each district.

In order to simplify the application of preventive measures on the basis of the conclusions drawn from the final results of the enquiries, the Conference decided to consider the possibility of a classification of districts according to the stage of development which each district had reached, in relation to the factors causing infant mortality.

The Conference agreed that the use of such a classification would facilitate the application of the results of the enquiry to the general prevention of infant mortality.

## II.

### Preventive Immunisation against Diphtheria, Scarlet Fever, Measles and Whooping-Cough.

The Conference took note of the reports on immunisation against diphtheria, scarlet fever, measles and whooping-cough (see list of documents) which had been prepared for the Health Organisation to give effect to the resolutions of the first Conference held at Geneva in September 1926 (document CH. 507 (1)).

In order to give full effect to the resolutions adopted during the first Conference and approved by the Health Committee, the Conference decided to ask certain of its members to prepare general reports on preventive immunisation against diphtheria, scarlet fever, measles and whooping-cough, such reports to include studies of the material already collected, of the literature, and of the personal experience of the rapporteur completed by such studies as might be considered necessary.

A sub-commission, composed of the rapporteurs, was charged with the task of drawing up the plan for the preparation of such reports (Appendix 4), and was asked to secure the collaboration of those members of the Conference particularly competent in the field of statistics when statistical data were to be considered.

## III.

In order to give practical effect to the results of the enquiries on infant mortality, the Conference suggests that the Health Committee might consider the utility of bringing the results of these enquiries to the attention of the various organisations concerned with the protection of infant life, and particularly to the health insurance organisations in the different countries, as well as to the Joint Commission of Experts on Health Insurance.

## IV.

In view of the increasing interest which attaches to the incidence and prevention of rickets and of recent developments capable of useful application, the Conference decided to study this subject, which had been on the agenda of its first session, at its next meeting.

V.

1. In view of the present epidemic of acute poliomyelitis, the Conference considers that the Health Organisation, in collaboration with the members of this Conference, might usefully complete the information already in its possession by getting into touch with the competent authorities in the various countries and securing details of each case according to a form prepared for this purpose (see Appendix 5).

2. The Conference suggests that it would be useful to prepare and to distribute a statement outlining the actual state of medical knowledge in regard to the etiology, prevention and treatment of the disease.

3. The Conference suggests that a study of the various methods used in the specific prevention and treatment of infantile paralysis would be useful and places its services at the disposal of the Health Committee for this purpose.

VI.

In view of the utility of the current field enquiries into infant mortality, and considering the importance of so-called post-vaccinal encephalitis in connection with the protection of child life, the Conference recommends that a " living " enquiry should be carried out on each case by a uniform method, and places at the disposal of the Health Committee the services of those of its members who have had special experience.

## Appendix 1.

### 1. Remarks introductory to the Discussions of the Third Conference of Health Experts on Infant Welfare at Vienna on September 26th to 28th, 1927.

*Enquiries on Infant Mortality.*

The lines on which the enquiry on infant mortality was to be conducted in the several countries were laid down at two previous conferences of the Committee of Health Experts on Infant Mortality. The enquiries, which are now being carried on in seven European countries — Germany, France, Great Britain, the Netherlands, Italy, Austria and Norway — and which will be instituted in South America early next year, include every death under one year of age and every dead-birth taking place within certain circumscribed areas of the above countries during a fixed period. They are being conducted on uniform lines, with a uniform questionnaire to be replied to in each case, uniform rules for the definition of still-birth and uniform classification of the causes of death.

Similarly, in selecting the districts in the various countries, some of them urban and others rural, the main consideration was to make these areas as uniform and comparable as possible as regards population and the number of births, deaths and dead-births occurring in one year. Sometimes, in special cases, these points had to yield to more important considerations affecting the organisation of the enquiry and the particular qualifications of the investigator.

The twenty-nine districts in the various countries finally chosen in accordance with these considerations are listed on page 7 with their birth and infant mortality-rates. The same table also shows the number of cases in the several countries estimated on an annual basis. Altogether, the enquiry in Europe will include about six thousand deaths under one year of age and three thousand dead-births.

If the organisation of the enquiries limited to deaths and dead-births necessitated very considerable preliminary work, that required in the countries and districts where the enquiry is to cover all the births as well, as will be the case in all the German districts, and also in Sunderland and Vanves, is indeed heavy. The following up of all the infants born in a year, and their fate from the social and medical point of view, will no doubt furnish some exceedingly interesting data on the causes of death in the first year of life. Desirable and useful though it seemed, the idea of making this kind of enquiry general had to be abandoned on administrative and financial grounds.

In spite of manifold difficulties, all the work of organisation planned by the experts at the last Conference has been accomplished. After adapting the organisation to the existing infant welfare institutions, or creating new bodies to carry out the enquiry, the necessary personnel has been selected and the work is now everywhere in full swing.

In accordance with the Committee's desire to devote particular attention to the clinical side, *i.e.*, the purely medical causes of infant mortality, it was specially urged that the enquiry should either be personally conducted by a children's specialist or, at any rate, that it should be conducted under his immediate supervision. This requirement has been complied with in all the districts, though it was only occasionally that the specialist

whose services were enlisted was able to undertake the long and tedious process of looking into each case and filling up each questionnaire personally. Only in Leyden and Dordrecht did it happen that a large number of the cases were personally known, in the course of his medical practice, to the director of the enquiry or the investigator responsible for carrying it out, and it is only in Vienna that two doctors are devoting themselves to the laborious task of investigating the circumstances of each case. In all other cases, the filling-up of the questionnaire, though under direct specialist medical supervision, was done either by welfare workers belonging to the institutions affiliated to the enquiry or engaged specially for the purpose, as in Mecklenburg-Strelitz, Holland, or else by the local practitioner concerned, as in Normandy. Where a widespread and efficient welfare organisation already existed, as in England, Paris and Germany (except Mecklenburg-Strelitz), the enquiries could often be wholly or partially entrusted to the existing institutions, whose experience would be valuable for the enquiry and who could obtain any additional particulars necessary by questioning the doctor and midwife and by making enquiries in the homes and hospitals.

The very large number of persons, apart from the families directly concerned, who were for some reason or other drawn into the enquiry, such as medical practitioners, welfare workers, medical officers, midwives, officials in the Registrar's office, hospital superintendents and heads of other establishments (private organisations and the like), as well as the varying susceptibilities of all these groups of individuals which differ with the country concerned, necessitated a whole series of measures to suit the peculiar conditions prevailing in each district and country, and at the same time to preserve the uniform character of the enquiry. Special arrangements were necessary to ensure that notification of each death under one year of age and each dead-birth should reach the investigator as promptly as possible. Special correspondence or other steps were also necessary to meet the susceptibilities of the doctors, who often, for considerations of prestige, held aloof from the enquiry ; and in some places (Paris and in Germany, for instance), a great deal of trouble had to be taken to enlighten the people as to the meaning of some of the questions. Thus in almost every district the organisation of the enquiry takes on an individual aspect according to the very varying circumstances. In spite of this diversity, however, it may be said that the experts' object — namely, to obtain reliable answers to the points enumerated in the questionnaire, in particular from the clinical point of view — has been everywhere fulfilled as nearly as possible.

The organisation in the various districts has already been described and analysed in the reports prepared by the Health Section after visits to the several districts (see List of Documents). These visits were designed to promote co-operation between the investigators of the different countries. They were therefore sometimes combined with joint consultations between all the investigators of the several countries on the progress of the work.

Obviously, having regard to the complexity of the organisation, on which we have only touched here, there were all sorts of obstacles to be overcome. In Paris, to begin with, one of the districts selected had to be changed because of the objections of the local doctors, and another district, in England, had to be changed because the investigator fell sick. Then the inaccessibility of some of the districts chosen led to many difficulties. For instance, in the country districts of Norway, where the melting of the snow was very late this year, the filling-up of many questionnaires was greatly delayed. In spite of all these obstacles, however, the enquiry on deaths has proceeded satisfactorily, while on the other hand it has often been extremely difficult, especially in Austria, England and even in Holland, to obtain information as to dead-births.

The enquiries began in Holland, Germany, Norway and Austria on January 1st of the present year ; in England, after a three months' preliminary trial, they were started again — on March 1st ; in France, the beginning of the enquiry was fixed for April 1st and in Italy for June 1st. The enquiry is to last a year in every district.

The Conference has met to-day to discuss the provisional results obtained in the past months and to decide what value the members attach to these results, having regard to the circumstances in which the enquiries were carried out.

An objection which has already been voiced by the experts themselves and which applies more particularly here — even if we assume the technical execution of the enquiries to have been perfectly carried out — is that the investigator has very seldom actually attended the infant and its family during life, and, therefore, in most cases has had to reconstruct the diagnosis after death from more or less reliable replies to enquiries. This, one of the weakest points in the enquiry, explains why, even in the investigations now being pursued on lines laid down by the experts, a certain percentage of the clinical diagnoses are lacking in clearness. This is particularly noticeable in the reports that have come in so far from every country with respect to a considerable number of premature births, for the more precise investigation of which the answers in the questionnaire are no doubt

helpful, but for which other special measures will perhaps seem desirable. For, indeed, one of the most important aims on which the experts laid stress at previous conferences was just this very matter of the elucidation of vague clinical diagnoses to which class premature birth, congenital debility, convulsions, and so on, belong.

If it can be broadly laid down that infants everywhere die from the same pathological causes, it is nevertheless plain from the material so far received that certain differences do exist in the clinical causes of death according to peculiar local conditions. We may mention, for instance, the frequent occurrence of congenital malformation in one of the Dutch districts, and in England, the constantly recurring cases of pelvic presentation. The frequent observation of the prevalence of convulsions in the Upper Austrian districts, mostly attributable to traumatism at birth, also deserves notice. The value of the clinical diagnosis, however, is impaired here, as elsewhere, by the fact — and this holds good of almost all the districts — that a post-mortem examination was only very occasionally possible.

It was the experts' intention from the first not to confine themselves to clinical observations, but to devote special attention to the social environment of the child and the hygienic conditions of its surroundings. The questionnaire used in the enquiry therefore contains, not only questions of a clinical nature regarding the medical history of the child and of its mother and father, but also a series of questions of a social nature. If we consider the extremely varied character of the districts comprised in the enquiry, which not only differ widely as regards geographical situation and outward features, but also present the sharpest contrasts in their social structure, it will be agreed that the enquiry may be expected to throw much light on the social causes of infant mortality.

Many of the districts selected present social and hygienic peculiarities which distinguish them, not only from other European areas, but even from other parts of the same country. Take, for instance, the rural district of Emmen in North Holland, which, with its wide, barren plains, only comparable to the Roman Campagna, and in spite of the often sadly defective housing and other unfavourable conditions, aggravated by unemployment, nevertheless actually combines a high birth-rate with a low infant mortality. Similarly, conditions in Rome, where the enquiry covered the whole area of the city, including the Roman Campagna and the suburbs, and where the mortality from district to district was sometimes found to vary from 3 to 20 per cent according to the social conditions of the various quarters, are also very remarkable. Special interest attaches to the comparison of conditions in the various towns comprised in the enquiry, some of which, though belonging to different countries, are very similar in character, like Paris and Vienna, while others, though belonging to the same country, show strikingly different characteristics, *e.g.*, the towns of South and North Holland.

One is often inclined to attribute such differences in infant mortality to constitutional and racial characteristics. But another point deserves special consideration, namely, as to how far do the intellectual and psychological qualities of the mother and the persons who have the care of her and her child affect infant mortality and the prevalence of dead-births. From the reports received, the districts chosen seem to offer a very fruitful field for observations in this connection. It is only necessary to allude here to certain popular customs, peculiar to Normandy and Upper Austria, as regards the feeding and care of infants which cannot but be highly injurious to the child's development, and the good conditions found in England, Norway and the North of Holland may perhaps be due to the influence of intellectual and psychological factors.

The experts' labours are not confined to minute research into the various cases during the current year ; a thorough examination of the infant mortality figures during the years preceding the enquiry, as well as the climatic, geographic, economic, social and hygienic conditions and the available welfare machinery, is being simultaneously pursued in each district, and has already been partially embodied in reports.

A thorough acquaintance with the general conditions prevailing in the several districts will certainly lead to definite conclusions on the exceedingly complex causes of infant mortality and still-births, and these conclusions will usefully supplement the material obtained from the enquiries into each separate case in the course of a year.

The experts will not only discuss the medical and social causes of all the cases hitherto observed, but will consider whether, and if so how, each case might have been prevented.

Thus, by a general study of conditions in the several districts, and after the results so obtained have been confirmed by experience covering a large number of individual cases, it should be possible to formulate recommendations for effective measures of prevention. In the conviction that the enquiry will lead to important practical conclusions, Professor Pirquet, among others, has stated his intention of enlisting the support of the Austrian sick-funds in the enquiry, with a view to securing their subsequent co-operation in the application of preventive measures.

The present Conference, whose task is to examine, from the clinical and social point of view, the results already obtained is, moreover, important technically in that it should already be possible to make definite proposals as to how to deal with the data now collected. The results will of course have to be shown in figures and tables, but the experts' wish has always been to dwell less on the statistical side and concentrate rather on purely clinical, social and hygienic considerations.

The Conference accordingly represents an important step towards the termination of this enquiry, which, it must be emphasised, is still being actively prosecuted. Its conclusions, therefore, can only be provisional and given with every reserve, and must not be taken as the final result of the investigations, which will not be concluded till next year.

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## 2. Data on the Twenty-nine Districts chosen for the Enquiry on Infant Mortality in Seven European Countries.

| Country | Nature of the District | Name of the District | Population | Total deaths under 1 year of age | Total number of still-births | Births per 1000 inhabitants | Deaths under 1 year of age per 100 births |
|---|---|---|---|---|---|---|---|
| Austria | urban | Districts VI, VI, | | | | | |
| | (1926) | VIII and X of Vienna | 168,000 | 77 | 34 | 7.5 | 5.5 |
| | | | 142,000 | 292 | 87 | 17.3 | 12.0 |
| | rural | Schärding and | | | | | |
| | (1925) | Engelhartszell | 29,088 | 143 | 33 | 17.75 | 19.5 |
| | | Gmunden | 37,877 | 73 | 31 | 19.5 | 9.9 |
| England | urban | Sunderland | 166,000 | 483 | 173 | 24.8 | 11.8 |
| | (1925) | Croydon | 199,300 | 187 | | 17.1 | 5.5 |
| | rural | Staffordshire | | | (38 for | | |
| | (1925) | (4 boroughs) | 71,768 | 93 | 3 boroughs) | 18.6 | 6.2 |
| | | Oxfordshire | 134,460 | 108 | 24 | 16.9 | 4.7 |
| France | urban | Plaisance | 83,000 | 135 (*a*) | 114 (*a*) | | |
| | | Vanves | 16,000 | 24 (*b*) | 15 (*b*) | 13 (*i*) | low percentage |
| | rural | Pays de Bray | 106,746(1921) | 316 (*c*) | 119 (*c*) | 24 (*f*) | 13.5 (*f*) |
| | | Pays de Caux | 107,622(1921) | 310 (*c*) | 117 (*c*) | 33 (*f*) | 11.6 (*f*) |
| | | Loches et | | | | | |
| | | Chinon | | 77 (*d*) | 31 (*d*) | 18.5 | low percentage |
| Germany | urban | Augsburg | 167,000 | 240 | 89 | 18.1 | 8.1 |
| | (1926) | Cassel | 172,000 | 217 | 113 | 16.78 | 7.82 |
| | rural | Lippe | 163,648 | 235 | 105 | 20.3 | 6.8 |
| | | Strelitz | 115,000 | 373 | 88 | 23.0 | 14.6 |
| Italy | urban | The 40 districts | | | | | |
| (1925) | | and Rioni, as | | | | | Between 3 and 20 |
| | | well as the | | | | | in the different |
| | | suburbs of | | | | | districts. |
| | | Rome | 705,301 | 1,527 | 1,015 | | |
| | rural | Agro Romano | | | | | |
| Netherlands | urban | Leyden | 68,316 | 59 | 40 | 21.9 | 3.94 |
| | (1924) | Dordrecht | 55,010 | 49 | 33 | 20.8 | 4.28 |
| | | Breda | 30,425 | 42 | 14 | 22.5 | 6.13 |
| | | Maastricht | 57,110 | 119 | 20 | 25.1 | 8.3 |
| | rural | Emmen | 44,623 | 113 | 51 | 39.8 | 6.3 |
| | (1924) | Hoensbroek | 46,573 | 209 | 44 | 40.2 | 11.2 |
| Norway | urban | Oslo (West) | 76,574 | 26 | 20 | 7.9 | 4.5 |
| | (1925) | Oslo (East) | 180,020 | 95 | 71 | 11.6 | 4.6 |
| | rural | Hedmark | 149,419 | 172 | 71 | 23.5 | 4.8 |

(*a*) Average for 1921-22 ; (*b*) average for 1920-26 ; (*c*) average for 1920-25 ; (*d*) average for 1923-25 plus six months of 1926 ; (*f*) for 1920-21 ; (*i*) These low figures are explained by the fact that a great many confinements take place in Paris maternity homes and that, in consequence, the births are not registered.

*General Survey of the Ground approximately covered by the Enquiry in the Different Countries.*

| Total number of districts covered by the enquiry in : | Total number of deaths under 1 year of age. | Total number of still-births. |
|---|---|---|
| Austria | 585 | 185 |
| England | 874 | 300 (approx.) |
| France | 862 | 396 |
| Germany (11,685 births) | 1,065 | 395 |
| Italy | 1 527 | 1,015 |
| Netherlands | 591 | 202 |
| Norway | 293 | 162 |

## 3. List of the Documents (September 19th, 1927)

| No. | Title | Language |
|---|---|---|
| *Printed* : | | |
| CH.507 (1) | Report on the Conference held at Geneva on September 27th, 28th and 29th, 1926. | E.[1] and F.[2] |
| CH.534 | Report on the Conference held in Paris from January 17th to 20th, 1927. | E. and F. |
| CH.617 | Report on the Conference held at Montevideo from June 7th to 11th, 1927. | E. and F. |
| CH/PE/32 | Questionnaire used for the Enquiry into Infant Mortality. | E. and F. German, Italian Dutch, Norwegian. |
| *Roneographed* : | | |
| CH/PE/1st Session/P.V.[1] (1), 2, 3, 4 and Annexes : | Minutes of the Conference held at Geneva on September 27th, 28th and 29th, 1926. | E. and F. |
| CH/PE/2nd Session/P.V. 1 to 5. | Minutes of the Conference held in Paris from January 17th to 20th, 1927. | E. and F. |
| CH/PE/1 | Maternity and Child Welfare Movement in Norway, by Professor A. Collett, Oslo. | E. |
| ,, 2 | Provisional Agenda of the Geneva Conference, September 1926. | Bilingual. |
| .. 3 | Infant Welfare in Austria, by Dr. A. Foramitti, Vienna. | German. |
| .. 4(1) | Observations of Dr. Greenwood on Agenda of First Meeting of Child Welfare Experts. | E. and F. |
| .. 5 | Infant Mortality and Child Welfare. Resolutions of the Health Committee (Fifth Session). | E. and F. |
| ,, 6 | Climatic Treatment of Austrian Children on the Italian Coasts, by Dr. A. Foramitti. | German and E. |
| .. 7 | Extract from a Letter from Professor A. Collett concerning paragraph 5 of the Agenda, CH/PE/2. | E. and F. |
| ,, 8 | Suggestions of Professor Gorter with regard to Item No. 5 of the Agenda, CH/PE/2. | E. and F. |
| .. 9 | Suggestions of Professor Gorter with regard to Item No. 6 of the Agenda, CH/PE/2. | E. and F. |
| ,, 10 | Remarks by Professor Rott on Item No. 3 of the Agenda. | E. and German |
| ,, 11 | Suggestions of Professor Gorter with regard to Item No. 1 of the Agenda. | E. and F. |
| ,, 12 | Suggestions of Professor Gorter with regard to Item No. II of the Agenda. | E. and F. |

[1] E. = English.
[2] F. = French

| No. | Title | Language |
|---|---|---|
| CH/PE/13 | Suggestions of Professor GORTER with regard to Item No. 4 the Agenda. | E. and F. |
| ,, 14 | Extract from a letter from Professor E. KNAFFL-LENZ dated September 10th, 1926. | E. and F. |
| ,, 15 | Extract from the "Tidsskrift for den Norske Leageforening", No. 24, 1926. Central School for Maternity and Child Hygiene and for Child Welfare Work, by Professor A. COLLETT, Oslo. | F. |
| ,, 17 | The Decrease of the Death Rate except among the New-Born, by Professor C. PIRQUET, Vienna. (Report already printed in R.E.94.) | Bilingual. |
| ,, 18 | Extract of a letter from Dame Janet CAMPBELL. | E. |
| ,, 19 | Observations of Professor GINI on the Enquiry into Infant Mortality. | F. |
| ,, 20 | Introduction to the Mortality Statistics of Breast-fed Infants in Norway, by Professor A. COLLETT, Oslo. | F. |
| ,, 21 | Remarks on the Preliminary Investigations, by Professor R. DEBRÉ. | F. |
| ,, 22 | Provisional Study of the Causes of Infant Mortality in Different Districts of the Netherlands, by Professor E. GORTER. | F. |
| ,, 23 | Observations on the Preliminary Investigations into Infant Mortality in Different Districts of Germany, by Professor R. ROTT, Berlin. | F. |
| ,, 24 | University of Vienna Child Clinic : | |
| | I. Training of Nursing Staff, principally from the Point of View of Preventive Medicine, by Professor NOBEL. | |
| | II. Preventive Medicine as Part of the Instruction given to Students, by Dr. R. WAGNER. | |
| | III. Training of District Nurses in Austria, by Dr. Hans WEINBERGER. | F. |
| ,, 25 | Provisional Agenda of the Paris Meeting, January 17th to 20th, 1927. | Bilingual. |
| ,, 26 | Teaching of Child Hygiene to Midwives in Austria, by Mme. M. HAUS. | F. |
| ,, 27 | Enquiry into Infant Mortality. Draft Questionnaire drawn up by Professor ROTT and Dr. E. ROESLE. | F. |
| ,, 28 | Infant Mortality during 1924 in the Magistracy of Gmünden (District of Low Mortality) and in the Health Resorts of Schärding and Engelhartszell (Districts of High Mortality), by Professor C. PIRQUET. | F. |
| ,, 29 | Areas provisionally selected for the Enquiry in Great Britain, by Dame Janet CAMPBELL. | E. |
| ,, 30 | Note by the Health Section on the Points for Discussion suggested by the Provisional Statements of the Experts with a View to the Establishment of a Final Scheme of Enquiry. | E. and F. |
| ,, 32 | Printed Questionnaire (given under "Printed"). | |
| ,, 33 | Report by Dr. JOANNON on the Districts chosen for the Enquiry into Infant Mortality in France. | F. |
| ,, 34 | Experiments in the Prevention of Diphtheria by Vaccination in France, by Dr. RAMON, of the Pasteur Institute in Paris. | F. |
| ,, 35 | Instruction in Child Hygiene for Medical Students and Public Health Nurses in U.S.A. | E. |
| ,, 36 | Report on Infant Mortality from Different Causes and at Different Age-Periods during the First Year of Life in Nine Cities of the U.S.A. and in the Urban and Rural Divisions of the Registration Area, presented by the U.S.P.H. Service. | E. |

| No. | Title | Language |
|---|---|---|
| CH/PE/37 | Observations on the Enquiry into Infantile Mortality in Selected Districts of England, France and the Netherlands. Report presented by the Health Section after a first visit to these districts (January 23rd to February 12th, 1927). | E. and F. |
| ,, 38 | Social and Sanitary Conditions of Croydon County Borough. | E. and F. |
| ,, 39 | Observations on the Enquiry into Infant Mortality in Austria. Report presented by the Health Section after journey from March 3rd to 8th, 1927. | E. and F. |
| ,, 40 | The Dick Test and Immunisation against Scarlet Fever in the Netherlands, by Professor H. ALDERSHOFF. | F. |
| ,, 42 | Preliminary Note on the Trend of the Natality and of the Infant Mortality in Various Countries, 1881-1925. | E. and F. |
| ,, 43 | Report on Immunisation against Scarlet Fever in Hungary, by Dr. B. JOHAN. | E. |
| ,, 44 | Organisation of the Enquiry undertaken in France into Infant Mortality. | F. |
| ,, 45 | The Infant Mortality Enquiry in Norway. Report presented by the Health Section after a journey in the selected districts. | E. and F. |
| ,, 46 | Investigations into Infant Mortality. Report presented by the Health Section after a journey in Selected Districts of Germany (March 16th to 23rd, 1927). | E. and F. |
| ,, 47 | The Investigation on Infant Mortality in Italy. Report drawn up by the Health Section after a journey from April 1st to 6th, 1927. | E. and F. |
| ,, 48 | Description of the County of Oxfordshire selected as a Rural District for the Enquiry on Infant Mortality in England. | E. and F. |
| ,, 49 | Description of the Town of Leyden. | F. |
| ,, 50(1) | Statistics concerning the Twenty-nine Districts chosen for the Enquiry into Infant Mortality in Seven European Countries. | F. |
| ,, 51 | Change of one of the Paris Districts. | F. |
| ,, 52 | Demographic and Sanitary Statistics of the City of Oslo. | F. |
| ,, 53 | Report on the Results obtained in Belgium by the Various Methods of Active Artificial Immunisation against Diphtheria, by Dr. L. VAN BOECKEL. | F. |
| ,, 54 | Report on the Prevention of Measles and Scarlatina in Germany, by Professor U. FRIEDEMANN. | F. |
| ,, 55 | Whooping-Cough, by Dr. Th. MADSEN. | F. |
| ,, 56 | Preliminary Results of the Enquiry into Infant Mortality. Report on Upper Austria (districts of Engelhartszell, Schärding and Gmünden), by Professor NOBEL. | F. |
| ,, 57 | Preliminary Results of the Enquiry into Infant Mortality. Report on the Netherlands. | F. |
| ,, 58 | Provisional Agenda of the Vienna Meeting, September 26th, 27th and 28th, 1927. | E. and F. |
| ,, 59 | Short Report on the Instruction given in Norway to Medical Students, to Midwives and to Other Interested Persons in Preventive Medicine, Child Hygiene and Measures relating to Child Welfare, by Professor A. COLLETT, Oslo. | F. |
| ,, 60 | Note on Methods of immunising Children against Certain Infectious Diseases in England and Wales, by Sir George BUCHANAN. | E. and F. |

| No. | Title | Language |
|---|---|---|
| CH/PE 61 | Preliminary Report on the First Year of the Infant Mortality Enquiry in England. | E. and F. |
| ,, 62 | On the Prevention of Scarlet Fever by Specific Methods on the Territory served by the State Institute of Hygiene in Zagreb during 1925-27, by Dr. B. Borcic. | E. |
| ,, 63 | Short Report on the Enquiry into Infant Mortality in the Commune of Rome | F. |
| ,, 64 | General Provisional Report on the Medical Findings and Proposals for improving the Existing Situation, drawn up after the Enquiry effected in Upper Austria in the Districts of Gmunden, Schärding and Engelhartszell. | F. |
| ,, 65 | General Provisional Report on the Medical Findings and Proposals for improving the Existing Situation, drawn up after the Enquiry made in Vienna. | F. |
| ,, 66 | Results of the Infant Mortality Enquiry in the Four Districts selected in England, from March until June, 1927. | E. and F. |
| ,, 67 | Introductory Remarks to the Discussions in connection with the Third Conference of Health Experts on Infant Welfare to be held at Vienna on September 26th to 28th, 1927. Report presented by the Health Section. | E. and F. |
| ,, 68 | Preliminary Results of the Enquiry in Norway. | F. |
| | Evaluation of the Results of the Enquiry into Infant Mortality, by Professor Rott, of Berlin. | German. |
| CH/PE/69 | List of documents of Health Experts on Infant Welfare up to 19.IX.27. | F. |
| ,, 70 | Preliminary Results of the Enquiry in France, by Professor R. Debré, of Paris. | F. |
| ,, 71 | Preliminary Results of the Enquiry in the Netherlands, by Professor Gorter. | F. |

## Health Experts on Infant Welfare.

*Documents relating to the Enquiry arranged by Subject.*

I. — Preparatory Documents, Agenda and Report of the Conference held at Geneva on September 27th, 28th and 29th, 1926.

CH.507 (1).
CH/PE/1st session, P.V.
CH/PE/1, 2, 3, 4 (1), 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 42.

II. — Preparatory Documents, Agenda and Report of the Second Conference, held in Paris from January 17th to 20th, 1927.

CH/PE/2nd session/P.V.
CH/PE/15, 17, 18, 19, 20, 21, 22, 23, 25, 27, 28, 29, 30, 31, 32, 33.
CH. 534.

III. — Documents relating to Instruction in Child Hygiene.

CH/PE/24, 26, 35, 59.

IV. — Documents relating to Methods of Immunisation employed in Different Countries against Various Infectious Diseases of Childhood.

CH/PE/34, 40, 43, 53, 54, 55, 60, 62.

V. — The Enquiry into Infant Mortality in Seven European Countries.

1. Organisation of the Enquiry and Description of the Districts chosen.
CH/PE/37, 38, 39, 44, 45, 46, 47, 48, 49, 50, 51, 52.

2. First Results obtained.
CH/PE/56, 57, 58, 61, 63, 64, 65, 66, 67, 68, 70, 71.

## Appendix 2.

Comparison between the Official Causes of Infant Deaths as certified to the Civil Authorities and the Causes as determined by Means of the Enquiry in the District of Plaisance.

| Official Causes | Causes as determined by the Enquiry |
|---|---|
| 1. Congenital debility. | Disseminated gangrene of the skin and mucous membranes. |
| 2. Dead-birth. | Premature birth at 7 months, albuminuria of pregnancy. |
| 3. No cause given. | Capillary bronchitis. |
| 4. Whooping-cough. | Whooping-cough. |
| 5. Asthenia. | Digestive disturbances. |
| 6. Measles. | Measles. |
| 7. Broncho-pneumonia. | Extensive burns followed by terminal broncho-pneumonia. |
| 8. No cause given. | Acute pulmonary infection. |
| 9. Gastric disturbances. | Gastric disturbances. |
| 10. Enterities. | Digestive disturbances. |
| 11. No cause given. | Premature birth at 7 months (malformation of the uterus). |
| 12. Debility. | Premature birth at 7 months (endometritis). |
| 13. Dead-birth. | Premature birth at 7 months. (unknown cause). |
| 14. Congenital debility. | Premature birth at 6½ months (overwork). |
| 15. Broncho-pneumonia. | Broncho-pneumonia. |
| 16. Congenital debility. | Premature birth at 7½ months (tuberculosis of the mother). |
| 17. Debility. | Premature birth at 6½ months (endometritis). |
| 18. Dead-birth. | Premature birth at 6½ months (syphilis ?) |
| 19. Debility. | Hereditary syphilis. |
| 20. Erysipelas. | Generalised streptococcic erysipelas. |
| 21. No cause given. | Digestive disturbances. |
| 22. Meningitis. | Tuberculous meningitis. |
| 23. Congenital debility. | Convulsions. (unknown cause). |
| 24. Acute gastro-enteritis. | Cholera infantum. |
| 25. Meningitis. | Sudden death (probably spasmophilia). |
| 26. Dead-birth. | Asphyxia. |
| 27. No cause given. | Otitis. |
| 28. Dead-birth. | Embryotomy, shoulder presentation. |
| 29. Convulsions. | Hereditary syphilis. |
| 30. Dead-birth. | Dystocia, due to excessive size of fœtus (dead-birth). |
| 31. Malignant jaundice of new-born. | Malignant jaundice, probably syphilitic. |
| 32. Whooping-cough. | Whooping-cough. |
| 33. Meningitis. | Whooping-cough. |
| 34. Debility. | Anencephalus. |
| 35. Debility. | Premature birth at 8 months (unknown cause). |

## Appendix 3.

Causes of Dead-Birth.

The nomenclature which follows includes both determining and predisposing causes :

I. Death of the fœtus during pregnancy :

Syphilis and other chronic diseases.
Toxæmias of pregnancy (eclampsia, albuminuria, retro-placental hæmorrhage, etc.).
Malformations incompatible with life.
Occupational poisonings.
Unknown causes.

II. Death due to premature birth (debility incompatible with extra-uterine survival)

Infants otherwise healthy — Overwork of the mother. / Violent traumatism inducing premature labour. / Mal-presentation.

| | |
|---|---|
| Infants otherwise healthy or defective | Acute infections.<br>Chronic infections, particularly syphilis.<br>Maternal or fœtal diseases (diseases of the heart, pernicious anæmia, etc. : for example, such conditions may terminate pregnancy spontaneously or necessitate the artificial emptying of the uterus). |

III. Death of the fœtus during labour (death due to mechanical causes) :

| | |
|---|---|
| Mal-presentations | Shoulder.<br>Breech.<br>Face. |
| Obstacles to the birth of the infant | Contracted pelvis.<br>Tumour obstructing birth-canal.<br>Anomalies in the dilatation of the birth-canal<br>Mal-position of the placenta. |
| Miscellaneous [1] | Protusion of the cord.<br>Abnormal uterine contractions.<br>Infections of the fœtus. |
| Other exceptional causes | Excessive size of fœtus.<br>Dystocia due to presence of twins.<br>Monstrosity capable of more or less prolonged survival, but causing dystocia (hydrocephalus, for instance). |
| Unknown causes. | |

## Appendix 4.

PLAN FOR THE STUDY OF PREVENTIVE IMMUNISATION AGAINST DIPHTHERIA, SCARLET FEVER, MEASLES AND WHOOPING-COUGH.

The reports prepared according to this plan are to represent the author's views, based on the literature on this subject, on his *personal* experiences, and on any studies which he may carry out. The reports should be international in scope and should include general conclusions and recommendations.

I. *Importance of the Disease.*

(It is suggested that this should be prepared by the Health Section.)

(*a*) Morbidity, mortality, fatality and importance of its complications and sequelæ. — Statistics relating to prevalence for as long a period as reliable data are available.

(*b*) Importance of the particular disease as a public health problem in relation to other prevalent epidemic diseases.

II. *Biological Basis of the Methods of Preventive Immunisation.*

Critical survey.

III. *Practical Application and Results in Various Countries.*

Control by means of biological reactions.
Considered from the clinical point of view.
Control by means of statistical data.

IV. *Complications and Sequelæ.*

V. *Difficulties of Application*, psychological, legislative, financial.

VI. *Personal Conclusions and Recommendations.*

[1] These are almost always secondary causes, associated with one of the causes mentioned in preceding titles, but they may be of first importance.

## Appendix 5.

### Questionnaire on Poliomyelitis.

Age Date

Surname Christian names

Parents
(Name, occupation, address.)

Since when has the child lived at the above address and where before?

Previous diseases from which this child has suffered: Measles, scarlet fever, whooping-cough, diphtheria, chicken-pox.

Vaccination.

Date of the commencement of the disease.

Initial symptoms before the onset of paralysis : Coryza, cough, sore throat, vomiting, diarrhœa, headache, pains in the limbs, in the nape of the neck, drowsiness, fever.
(Underline the symptoms observed.)

Manner in which paralysis made its appearance :

Leg : right left.
Arm : right left.
Muscles of the eye.
Mouth and pharynx.
Neck and shoulders.
Back.
Abdominal wall.

Manner in which the paralysis disappeared.

Other clinical symptoms.

Describe the general condition of the child from 7 to 14 days after the commencement of paralysis.

Laboratory investigations : lumbar puncture, leucocyte count.

Bacteriological and serological investigations : Wassermann reaction, electrical examination of muscles.

Diseases occurring at the same time among parents, brothers or sisters, or other persons living in the same house or among school-fellows : Coryza, sore throat, enteritis, headache, rheumatic symptoms.

Is there any information as to the child having come into contact with a person suffering from poliomyelitis ; if not, what is the presumed source of infection?

The method of treatment used and the results obtained :

During the acute stage of the disease.

During the stage of paralysis.

Was a serum used ?

If so, when ?

What serum ? (convalescent serum)
(horse-serum)

How many injections were given ?

Were the injections given subcutaneously, intramuscularly or subdurally in the spinal cord ?

C. H. 576.

**ANNEX 144d.**

# REPORT OF THE FIRST SESSION OF THE COMMISSION OF EXPERT STATISTICIANS

*Held at Geneva on March 14th, 15th, 16th and 17th, 1927.*

During its eighth session in October 1926, the Health Committee adopted the following resolution :

" The Health Committee,

" Having considered the report of the Medical Director on the List of Causes of Death, the correspondence on this subject with the International Institute of Statistics and the observations made during the discussions in the Committee,

" Decided :

" (*a*) To entrust to a committee of experts the study of the documents transmitted to the Health Section by the Governments which comply with its request and of the preparatory work incident to the revision of the nomenclature now in use ;

" (*b*) To keep the International Institute of Statistics in touch with the work of the committee of experts and, when the moment appears opportune, to convoke a preparatory conference of the committee of experts and a delegation from the Institute, in order to secure agreement on the questions which will be submitted to the future International Conference."

Accordingly, the following Expert Statisticians met at Geneva on March 14th, 15th, 16th and 17th :

*Chairman :* Dr. H. WESTERGAARD, Professor of Statistics at the University of Copenhagen ;

Dr. Haven EMERSON, Professor of Public Health Administration, Columbia University, New York, and Dr. W. H. DAVIS, Chief Statistician for Vital Statistics, Bureau of the Census, Washington, D.C. ;

Professor Corrado GINI, President of the Central Statistical Institute of Italy, Rome ;

M. Michel HUBER, Director of the Statistique générale de la France, Paris ;

Dr. E. ROESLE, Director of Medical Statistics, Deutsches Reichsgesundheitsamt, Berlin ;

Mr. S. P. VIVIAN Registrar-General of England and Wales, London, and Dr. T. H. C. STEVENSON, Technical Adviser to the Registrar-General, London.

On the recommendation of the Conference of delegates from the three Scandinavian Governments, which met in December 1926 at Copenhagen, to prepare a List of Causes of Death, two of the members of that Conference were delegated by their administrations to present to this session of the Commission of Statistical Experts the list which had been adopted :

Dr. H. J. HANSEN, Director of the Department of Medical Statistics, Danish State Board of Health, Copenhagen ;

Dr. H. N. GRAM, Director of the Norwegian Public Health Service, Oslo.

Mr. J. W. NIXON, of the International Labour Office, also attended the session.

After study of the documents submitted for its consideration (Appendix I) and general discussion, in which the views of the various members and advisers were presented, the Commission of Expert Statisticians adopted the following recommendations :

## 1. THE LIST OF CAUSES OF DEATH.

### I.

" The Commission of Statistical Experts, in pursuance of its terms of reference, by which it was invited to 'study the documents transmitted to the Health Section by the Governments which complied with its request and the preparatory work incident to the revision of the nomenclature now in use', has taken note of the documents submitted for its consideration [1] (Appendix I).

[1] Professor Gini asked that the following signed statement should be printed in the report of the Commission : " Professor Gini, although entirely in agreement with the recommendations of the Commission, could not approve of the first paragraph of the resolution, believing that it would create an impression that the members of the Commission had studied the replies of the Governments, while these were not included among the documents submitted to them."

"The Commission considers that a large number of countries, while appreciating that the abridged list is inadequate, are not prepared to adopt the detailed nomenclature of 205 rubrics.

"Believes that a list of intermediate length not exceeding 100 rubrics might be adopted by a larger number of countries, and recommends the provisional list of 90 rubrics (Appendix II) for consideration by the various Governments.

"It suggests that it would greatly facilitate the preparatory work of the Conference for the Revision of the International Nomenclature of Causes of Death if proposals for the inclusion of additional details in the International List were made in the form of subdivisions of these 90 rubrics, and not as new rubrics."

II.

"The Commission suggests that a still shorter list of 27 rubrics may be found useful for the purpose of provincial and other local classification. (This abridged list may be printed as a table on a single page and would still leave space for the addition of a few rubrics for causes of special interest in the locality concerned) (Appendix III)."

III.

"The Commission considers that it would be important to secure agreement regarding the further subdivision of each of the 90 rubrics in so far as they do not concern merely the peculiar prevalence of certain diseases omitted in the list (such as plague, cholera, malaria, typhus) (examples shown in Appendix IV). The Commission believes that this agreement could most readily be secured by a conference of experts from the countries intending to use a more detailed list. This meeting should not take place before the third revision of the International Nomenclature."

IV.

"The Commission further recommends that each country should publish a complete list of the terms which it intends to include in each rubric."

While its views with regard to the subdivision of the rubrics are expressed in Part III of this resolution, the Commission thought it would be desirable to give examples of the method of subdivision for the information of the various Governments. Accordingly, rubrics 1, 10, 15, 16 and 17 were subdivided as shown in Appendix IV.

2. International Uniformity of Classification of Still-births by Causes.

I.

In view of the desire expressed by the competent authorities of the Governments of Brazil and Venezuela to secure improvement in the classification of still-births by causes, and in recognising the importance of obtaining information regarding the medical or lay attendance at the delivery, the Commission adopted the following resolution :

"It is desirable to have all still-births reported upon forms which will indicate the professional or lay character of attendance and the cause of death so far as determinable according to a classification to be agreed upon, and included among those of the detailed International List of Causes of Death."

II.

"In view of the fact that the competent authorities of certain countries had not been able to adopt the definition of still-birth recommended by the Health Committee to Governments, the Commission of Expert Statisticians decided to request its Chairman to nominate a Sub-Committee to consider the replies of the various Governments concerning the definition of still-births proposed by the Health Committee, with a view to obtaining the greatest degree of uniformity practicable after reference to the respective Governments."

Accordingly, the Chairman nominated M. Huber, Mr. Vivian and Dr. Davis to serve on this Sub-Committee.

III.

"After considering the proposals of Professors Gini and Rott (Appendix I, items 10 and 11) to the Conference of Health Experts on Infant Welfare, the first relating to schedules for obtaining information on infant deaths, the second to the desirability of securing international agreement on the tabulation of infant deaths and still-births, the Commission was of the opinion that, while fully realising the importance of uniform registration and tabulation of deaths of infants, this question was not ripe for solution before the introduction of a general standard death certificate."

### 3. Standard Death Certificates, Classification of Joint Causes of Death, and Tabulation by Age and Sex.

The Commission expressed its views with regard to these subjects, which had been previously studied by a special commission of experts appointed by the Health Committee (the reports of which had been communicated to the members of the Conference) in the following resolution :

"The Commission believes that agreement as to (*a*) the system of selection for classification of one out of two or more jointly stated causes of death, (*b*) a standard death certificate, and (*c*) tabulation by age and sex, would very materially enhance the comparability of mortality statistics ; but thinks it necessary to postpone these questions for more mature consideration in the light of collected opinions and of any views which may be expressed with reference to such questions by the International Institute of Statistics."

### 4. Preparation of a Nomenclature of Diseases.

After consideration of this subject, the Commission adopted the following resolution :

"The Commission of Statistical Experts, while limiting its immediate consideration to the List of Causes of Death, calls the attention of the Health Committee to the importance of securing accurate statistics of sickness which may not cause death but materially concern the working ages of life between childhood and old age, and to the great value of such statistics from the point of view of public health as well as for economic and administrative purposes.

"The Commission recommends that, to this end, information should be collected as to any lists of terms describing sicknesses which may be at present in use, and any statistical data that have already been collected under any nomenclature of diseases, as well as on any other available sources of information (sickness insurance, hospitals, dispensaries, etc.).

"The Commission suggests that a letter should be addressed to authorities of the various Governments competent in this respect asking if they are prepared to co-operate in this study and, if so, if they would agree to communicate to the Health Committee of the League of Nations all relevant documents. Such authorities should be asked, further, if they would be ready to examine the question with the assistance of national committees, which would secure the assistance of medical statistical and administrative experts.

"The Commission suggests that the work of any such national committees should be co-ordinated through its agency with a view to preparing ultimately an international list of terms describing sicknesses. This list should, as far as possible, be comparable with the rubrics of the current detailed International List of Causes of Death. In any such study, account should be taken of the morbidity statistics of armies and navies as well as of the civil population.

"The Commission recommends that the preliminary study of the documents obtained from the national administrations or otherwise available should be made by the Health Section of the League of Nations, with the help of members of this Commission or of national committees, and a report presented as early as possible.

"The Commission would suggest that a detailed plan of further study could best be prepared after a close analysis of this report."

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### Appendix I.

The following documents were distributed to the members of the Conference :

1. Proposed Nomenclature of Causes of Death, drawn up by Delegates from the Administrations of Denmark, Norway and Sweden at the Copenhagen Conference, December 10th-11th, 1926 (document C.H. 563).
2. Proposals relating to the Third Revision of the International List of Causes of Death, prepared by a Committee of the American Public Health Association and communicated to the Health Committee (Reprint No. 1044 from the *Public Health Reports*, United States Public Health Service, Washington, D.C.).
3. Proposals for the Fourth Revision of the International List of Causes of Death, by Professor E. Roesle, Director of Medical Statistics, Deutsches Reichsgesundheitsamt, Berlin (document C.H. 561).
4. Suggestions for the Revision of the International List of Causes of Death, by Dr. J. C. Dunlop, F.F.A., Registrar-General for Scotland (document C.H. 564).
5. Memorandum on the Revision of the International List of Causes of Death, by Dr. T. H. C. Stevenson, Technical Adviser to the Registrar-General of England and Wales (document C.H. 568).

6. Remarks by Dr. T. H. C. Stevenson on the Proposals for the Third Revision of the International List of Diseases and Causes of Death (document C.H. 570).

7. Comparative Table of the Various Proposals for the Revision of the International List of Causes of Death (document C.H. 569).

8. List of Causes of Death, proposed by the Scandinavian Countries, arranged according to the Decimal System : *Nomenclatura decimalis causarum mortis* by Dr. H. J. Hansen (document C.H. 568).

9. International Nomenclature of Diseases and of Causes of Death for Use in the Preparation of Nosological Statistics, as fixed by the International Commission entrusted with the Decennial Revision, 1920 (French only).

10. Memorandum of Professor Rott on the International Unification of Methods of Registration of Deaths during the First Year of Life (document C.H./P.E./10).

11. Schedules for the Certification of Births and Infant Deaths, presented by Professor Gini, President of the Central Statistical Institute of Italy, Rome.

12. Standard Certificates of Births and Deaths, presented by Professor Haven Emerson and Dr. Davis.

(*Note.* — Members of the Commission also received before assembling at Geneva documents relating to the work of the Expert Commissions on Tabulation of Joint Causes of Death and on Age and Sex Classification (documents C.H. 288 and C.S. III)).

## Appendix II.

### Provisional International List of Causes of Death.

Proposed for the consideration of the Governments (Resolution 1) and showing the corresponding numbers of the current international detailed list.

I.

| No. in proposed list | Cause of death | No. in current list |
|---|---|---|
| 1 | Enteric fever | 1 |
| 2 | Smallpox | 6 |
| 3 | Measles | 7 |
| 4 | Scarlet fever | 8 |
| 5 | Whooping-cough | 9 |
| 6 | Diphtheria | 10 |
| 7 | Influenza | 11 |
| 8 | Dysentery | 16 |
| 9 | Tuberculosis of the respiratory system | 31 |
| 10 | All other tuberculosis | 32-37 |
| 11 | Syphilis | 38 |
| 12 | Septicæmia (non-puerperal) | 41 |
| 13 | Diseases due to animal parasites | 115, 116, 121 |
| 14 | Other infectious diseases | 2, 3, 4, 5, 12 to 15, 17 to 30, 39, 40, 42 |

(*Note* — Other epidemic diseases must be specified wherever they cause an appreciable mortality. This is especially the case with plague, cholera, yellow fever, typhus, relapsing fever and malaria.)

II.

| | | |
|---|---|---|
| 15 | Carcinoma | 43-49 |
| 16 | Sarcoma | |
| 17 | Malignant tumours, other or unspecified | |
| 18 | Benign tumours and tumours not returned as malignant | 50, 137, 139, parts of 84, 85 141 |
| 19 | Acute rheumatic fever | 51 |
| 20 | Chronic rheumatism, osteo-arthritis and gout | 52 |
| 21 | Diabetes mellitus | 57 |
| 22 | Pernicious anæmia | 58(*a*) |
| 23 | Exophthalmic goitre | 60(*a*) |
| 24 | Other diseases of the ductless glands | 59, 60(*b*), 61, 62, 63, 64, |
| 25 | Leukemia and Hodgkin's disease | 65 |
| 26 | Other general diseases | 53, 54, 55, 56, 58(*b*), 69 |

III.

| No. in proposed list | Cause of death | No. in current list. |
|---|---|---|
| 27 | Meningitis | 71 |
| 28 | Tabes dorsalis | 72 |
| 29 | Cerebral hæmorrhage and apoplexy | 74 |
| 30 | General paralysis | 76 |
| 31 | Other forms of mental alienation | 77 |
| 32 | Epilepsy | 78 |
| 33 | Other diseases of the central nervous system | 70, 73, 75, 79, 80 to 84, less cerebral tumour |
| 34 | Diseases of the eye, the ear and their annexa (tumours excepted) | 85, 86 |

IV.

| | | |
|---|---|---|
| 35 | Pericarditis | 87 |
| 36 | Acute endocarditis and myocarditis | 88 |
| 37 | Angina pectoris | 89 |
| 38 | Chronic valvular heart disease | part of 90 |
| 39 | Other and unspecified diseases of the heart | part of 90 |
| 40 | Aneurysm | 91(*a*) |
| 41 | Other diseases of the arteries | 91 (*b*) (*c*) |
| 42 | Embolism and thrombosis (non-cerebral) | 92 |
| 43 | Other diseases of the circulatory system | 93, 94, 95, 96 |

V.

| | | |
|---|---|---|
| 44 | Bronchitis | 99(*a*), (*b*) |
| 45 | Broncho-pneumonia | 100 |
| 46 | Lobar and unspecified pneumonia | 101 (*a*) (*b*) |
| 47 | Pleurisy | 102 |
| 48 | Other diseases of the respiratory system (tuberculosis excepted) | 97, 98 to 103-107 |

VI.

| | | |
|---|---|---|
| 49 | Ulcer of the stomach and duodenum | 111 (*a*) (*b*) |
| 50 | Diarrhœa and enteritis | 113, 114 |
| 51 | Appendicitis and typhlitis | 117 |
| 52 | Hernia | 118(*a*) |
| 53 | Intestinal obstruction | 118(*b*) |
| 54 | Other diseases of the stomach and intestines | 112, 119 |
| 55 | Cirrhosis of liver | 122(*a*) and (*b*) |
| 56 | Biliary calculi | 123 |
| 57 | Other diseases of the liver | 120, 124 |
| 58 | Other diseases of the digestive system | 108 to 110, 125 to 127 |

VII.

| | | |
|---|---|---|
| 59 | Acute nephritis | 128 |
| 60 | Chronic nephritis | 129 |
| 61 | Other diseases of the kidneys and annexa (pyelonephritis) | 130, 131 |
| 62 | Calculi of the urinary passages | 132 |
| 63 | Diseases of the bladder | 133 |
| 64 | Diseases of the prostate | 135 |
| 65 | Other diseases of the genital organs | 134, 136, 138 140, 141 |

VIII.

| | | |
|---|---|---|
| 66 | Accidents of pregnancy and labour | 143, 144, 145 |
| 67 | Puerperal septicæmia (including abortion) | 146 |
| 68 | Puerperal albuminuria and convulsions (Eclampsia) | 148 |
| 69 | Other puerperal diseases | 147, 149, 150 |

IX.

| | | |
|---|---|---|
| 70 | Diseases of the skin and annexa | 151, 152, 153, 154 |

X.

| | | |
|---|---|---|
| 71 | Diseases of the organs of locomotion (tuberculosis and rheumatism excepted) | 155, 156, 157, 158 |

XI.

| No. in proposed list | Cause of death | No. in current list |
|---|---|---|
| 72 | Congenital malformation | 159 |

XII.

| | | |
|---|---|---|
| 73 | Congenital debility, icterus and scleroma | 160 |
| 74 | Premature birth | 161(*a*) |
| 75 | Other diseases peculiar to early infancy | 161(*b*) 162, 163 |

XIII.

| | | |
|---|---|---|
| 76 | Senility | 164 |

XIV.

| | | |
|---|---|---|
| 77 | Suicide | 165 to 174 |
| 78 | Homicide | 197 to 200, 190, 191 [1] |
| 79 | Alcoholism, acute and chronic | 66 |
| 80 | Acute accidental poisoning (gas excepted) | 175-177 |
| 81 | Other chronic poisoning | 67-68 |
| 82 | Accidental burns and scalds | 178-179 |
| 83 | Accidental absorption of irrespirable, irritating and poisonous gas, including suffocation | 180-181 |
| 84 | Accidental drowning | 182 |
| 85 | Accidental traumatism by fall | 185 |
| 86 | Accidental crushing | 186-188 |
| 87 | Other external violence and unstated forms of accidental violence | 183, 184, 189, 196, 201, 202 [1] |
| 88 | Violence of unknown causation | 203 [2] |
| 89 | Other external causes | 192-195 |
| 90 | Causes non-specified or ill-defined | 204-205 |

*To be separately tabulated:*

A. Accidents in mines and quarries.
B. Railway accidents.
C. Automobile accidents.
D. Injuries by other vehicles.
E. Accidents from machinery.

## Appendix III.

PROVISIONAL ABRIDGED LIST OF CAUSES OF DEATH, PROPOSED FOR THE CONSIDERATION OF THE GOVERNMENTS.

1. Enteric fever.
2. Smallpox.
3. Measles.
4. Scarlet fever.
5. Whooping-cough.
6. Diphtheria.
7. Influenza.
8. Tuberculosis.
9. Malignant tumours.
10. Diabetes.
11. Cerebral hæmorrhage.
12. Diseases of the heart.
13. Bronchitis.
14. Pneumonia, all forms.
15. Other respiratory diseases.

[1] All violent deaths due to war should be separately tabulated and it should be specified whether they were due to executions, homicide, or accident.

[2] This group should include all violent deaths which cannot be definitely attributed to suicide, homicide or accident.

16. Diarrhœa and enteritis.
17. Appendicitis and typhlitis.
18. Cirrhosis of liver.
19. Nephritis, acute and chronic.
20. Puerperal septicæmia.
21. Other accidents and diseases of pregnancy and parturition.
22. Congenital debility and malformations.
23. Premature birth.
24. Suicide.
25. Accidents.
26. Other defined causes of death.
27. Ill-defined causes.

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## Appendix IV.

EXAMPLES OF THE SUBDIVISION OF RUBRICS SUGGESTED BY THE COMMISSION.

*Example I.* — 1. Enteric fever :

(*a*) Typhoid fever.
(*b*) Paratyphoid fevers.

*Example II.* — 10. Tuberculosis, other than pulmonary :

(*a*) Tuberculosis of the central nervous system.
(*b*) ,, of the intestines and peritoneum.
(*c*) ,, of the vertebral column.
(*d*) ,, of other bones and joints.
(*e*) ,, of the lymphatic system.
(*f*) ,, of the genito-urinary system.
(*g*) ,, of all other organs.
(*h*) Disseminated tuberculosis — acute.
(*i*) Disseminated tuberculosis — chronic.

*Example III.* — 15 and 17 : Carcinoma and other malignant tumours (sarcoma excepted)

*Site.*

1. Lip.
2. Tongue.
3. Mouth.
4. Jaw.
5. Pharynx.
6. Œsophagus.
7. Stomach.
8. Liver and gall bladder.
9. Mesentery and peritoneum.
10. Intestines (except rectum).
11. Rectum and anus.
12. Abdomen and pelvis.

13. Ovary and fallopian tube.
14. Uterus.
15. Vagina and vulva.

16. Breast.
17. Skin.

18. Larynx.
19. Lungs and pleura.
20. Mediastinum.
21. Pancreas.
22. Kidneys and suprarenals.
23. Prostate.
24. Bladder.

25. Brain.

26. Bones (except jaw).
27. Testes.
28. Unstated.

*Example IV* — 16. Sarcoma :

1. Skin and subcutaneous tissue.
2. Bones.
3. Internal viscera.
4. Other tissues.

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**ANNEX 144e.**

C.H. 657.

# OBSERVATIONS FROM BRITISH DEPARTMENTS ON THE RECOMMENDATIONS OF THE COMMISSION OF EXPERT STATISTICIANS.

Geneva, October 27th, 1927.

The recommendations of the Commission of Expert Statisticians appointed by the Health Organisation of the League of Nations have been submitted to the several Departments of the United Kingdom charged with the collection and tabulation of vital statistics for their observations. It is proposed at a later date to convene a meeting of representatives of these Departments with a view to any further communication which may be necessary on particular points of detail. In the meantime, the proposals of the Commission of Expert Statisticians have in the following notes been considered only from the standpoint of their general practicability.

## 1. List of Causes of Death.

The Departments of the United Kingdom which are concerned, on taking account of the considerations indicated by the Commission of Statistical Experts in their first resolution, made with the object of securing the maximum attainable degree of international uniformity in the presentation of statistics of causes of death, would be prepared to participate in preparation for a revision of the International List based on the principle of adopting approximately ninety rubrics of the kind suggested in the resolution.

The preparation of a still shorter or "abridged" List of approximately twenty-seven rubrics for the purpose of provincial and other local classification, as proposed in Resolution 2 of the Commission, would seem to promise advantages, and should be undertaken with a view to its presentation along with the new International List to the International Conference by which these Lists will be decided.

In regard to the third resolution of the Commission of Statistical Experts, it is considered that those countries which for some time past have adopted a more minute classification of causes of death, and at present utilise the 205 rubrics authorised by the International List of 1920, will wish to continue to tabulate their causes of death under the same or a not very dissimilar number of headings. The acceptance of a basic ninety rubrics, with liberty to each country to add subdivisions or sub-rubrics, would no doubt allow this to be done ; moreover, the third resolution contemplates that the representatives of the countries in question should confer together, after the 90 rubrics have been determined, with the object of obtaining identity and comparability in respect of additional subdivisions. Nevertheless, it seems unnecessary and even undesirable to accept that part of the third resolution which assumes that the completion of the new International List of some ninety rubrics, and its adoption by the next International Conference, must precede any discussions between the representatives of those particular countries with the object of mutually agreeing on subdivisions. It is considered that these representatives should discuss its elaboration during the preparatory stages of the new List, and that any common agreement arrived at should be reported and recorded to the Conference.

## 2. International Uniformity of Classification of Still-Births by Causes.

While recognising the desirability of registration of still-births and the need of a standard definition to secure a better measure of comparability of infantile mortality statistics than the present chaotic conditions afford, the Departments concerned are of the opinion that the difficulty of obtaining reliable statements of the causes of still-births, even in the medically attended cases, would render any tabulation of doubtful value except as an indication of the local progress of certification.

In the United Kingdom, still-births are registered in England and Wales only under an Act of 1926. Provision has been made in this Act for obtaining a statement of the evidence upon which each case is registered as still-born ; but, for the reasons specified above and in view of the fact that a portion only of the still-births in the United Kingdom are medically attended, no statement of cause of still-birth was required to be furnished or appears likely to be obtainable.

A subsidiary tabulation of infantile deaths by greater detail of age than is possible in the main tabulation has been effected in each division of the United Kingdom for some years past, and a discussion of this subject at the next revision of the International List would be supported, with a view to the establishment of a standard list of causes and age-groups.

3. Standard Certificate. Classification of Joint Causes, and Tabulation by Age and Sex.

Hitherto the form of a standard certificate has not been discussed at the decennial Conferences for the revision of the International List. While recognising the difficulties associated with international adoption of a standard certificate designed to meet the national requirements of all countries, the Departments concerned would recommend that this subject should be added to the agenda of the next Conference and suggest that a form of certificate should be designed and circulated in advance of the meeting in order to excite a greater interest in this essential matter.

In England and Wales, a new form of medical certificate has been in use since July 1st last. The form of statement of the cause of death in this certificate was framed in consultation with representatives of the leading bodies in the medical profession with a view to obtaining from the certifying practitioner a clearer statement of the chain of pathological causes leading to death. It is hoped that, by this means, arbitrary rules for the selection of one out of several jointly stated causes of death may become less necessary.

The discussion at the revisional Conferences of international rules for the classification of jointly stated causes of death has not hitherto been very successful. Although successive Conferences have recommended the adoption of the Bertillon rules, many countries using the International List have continued to employ their own rules for selection. In view of the existing lack of uniformity, it is important that each country should include in its published statistics, or in a manual of its statistical practice, a clear statement of the system which is employed in that country in dealing with the joint causes of death.

The Departments concerned would favour the tabulation by age in quinquennial groups to obviate the lack of comparability occasioned by the present use of varying decennial age-groups. It is noted that at present some countries favour decennial groups ending in 0 (10, 20, 30, etc.), while others tabulate in groups ending in 5 (15, 25, 35).

4. Preparation of a "Nomenclature of Diseases".

In response to the suggestion of the Commission of Expert Statisticians, a copy of the last edition of the *Nomenclature of Diseases*, prepared by a Committee appointed by the Royal College of Physicians of London, is forwarded herewith for the information of the Health Committee of the League. It was designed for the purpose of standardising medical terms and thus to afford guidance to practitioners in the use of terms in the certification of causes of sickness or of death.

The *Nomenclature* was first issued in 1869. It has not appeared necessary that its revision should invariably be undertaken every ten years, and in the present case it is proposed to take into consideration a new edition to be issued in 1930.

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**ANNEX 144 f.**

C.H./632(1)(a).

## RECOMMENDATIONS OF THE COMMISSION OF EXPERT STATISTICIANS, MARCH 1927.

### Observations of the Governments of the Irish Free State, Estonia, Switzerland and the Netherlands.

Geneva, October 26th, 1927.

*The Irish Free State.* — The Government of the Irish Free State has drawn the attention of the responsible department to the report of the Commission of Expert Statisticians and has submitted a detailed and abridged list of causes of death (C.H./Expert Stat./14) showing the subdivision of certain rubrics which, together with the undivided rubrics, would meet the requirements of the Irish Free State.

*Estonia.* — A special commission, composed of representatives of the Central Health Administration and the Central Statistical Office, has been appointed to prepare the final resolutions concerning the proposed list of ninety rubrics; the same commission has been instructed to study the possibility of establishing uniform morbidity statistics in co-operation with the Commission of Expert Statisticians of the Health Organisation.

*Switzerland.* — The Director of the Federal Public Health Service of Switzerland has informed the Health Organisation of the League that the Federal Statistics Office has no objection to the proposed list of ninety rubrics. The question of uniform morbidity statistics is now being studied with the help of the Federal Office of Social Insurance.

*The Netherlands.* — The question of uniform morbidity statistics will be studied in due course by the special statistical commission of the Gezondheidsraad.

A number of lists of diseases at present in use in hospitals, sickness insurance societies, school hygiene services, railway administrations and the army have been collected.

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**ANNEX 144g.**

C. H. 651.

# PROPOSALS FOR THE ESTABLISHMENT OF INTERNATIONAL MORBIDITY STATISTICS.

By Dr. E. Roesle, Berlin.

Geneva, October 25th, 1927.

## 1. The Importance of Statistics of the Causes of Morbidity for the Purpose of Determining the State of Public Health.

Supervision over the health of the population has always been regarded as the most important duty of the public health administration. Although the necessity of a statistical basis for the proper exercise of such supervision was generally recognised, opinion was divided as to the form of statistics best suited for the purpose. On one point, however, all were agreed, namely, that the general mortality statistics do not suffice to determine the state of health of the population. It was rightly realised that for this purpose statistics of pathological conditions, in other words, statistics of sickness, were absolutely essential.

The impossibility of including all cases of sickness in statistical returns has led most countries to limit these statistics to the *causes of death*. This one-sided restriction to a fraction of cases of sickness, that is to say, to those which have a fatal issue, is responsible for the fact that the present generation of doctors to a large extent still entertains vague or wrong ideas of the incidence and social importance of individual diseases, and is only superficially acquainted with the very varying significance of a disease from the point of view of morbidity, mortality or invalidity. Even medical textbooks contain no more than inconclusive figures which only too plainly reveal the gaps in our statistical information.

In some countries, an attempt has been made to supplement these one-sided and unreliable causes-of-death statistics by seeking to obtain statistical information on causes of the incidence of disease, at any rate as far as concerns patients *treated in hospital*. The value of morbidity statistics so compiled is obviously limited, since the question whether a patient is treated in hospital or not is determined by the gravity of the disease or particular circumstances.

One country, viz., the former Russian Empire, went a step further and required from all doctors and field surgeons a diagnosis of the disease in the case of all their patients. In that country, statistics of the causes of the incidence of disease were looked upon as of greater practical importance than those of the causes of death, and for that reason, in spite of many local deficiencies, much more is known of the incidence of certain diseases than in any other country.

Obviously, the statistical knowledge obtained concerning the incidence of certain diseases in a country must differ very widely according to which of these three methods is applied. A practical example will show the different degrees of this knowledge which may be obtained according as the available statistics refer respectively to causes of death, causes of death and causes of morbidity among patients treated in hospitals, or causes of total morbidity. If we choose for this purpose the incidence of parotitis epidemica in 1911, and if we take England and Wales, Germany and Russia as types of the three different methods of compiling sickness statistics, the only data we shall have obtained will be the following :

I. Statistics of Diseases as Causes of Death (*Cause-of-Death Statistics*).

| | |
|---|---|
| Number of deaths from parotitis epidemica in 1911 : | |
| England and Wales | 49 |
| Germany | 7 |
| Ditto per 100,000 of average populations : | |
| England and Wales | 0.14 |
| Germany | 0.01 |

II. Statistics of Diseases as Causes of Treatment in Hospital (Statistics of Causes of Morbidity among Hospital Patients or, briefly, *Statistics of the Causes of Clinical Morbidity*).

| | |
|---|---|
| Number of children admitted in German general hospitals for parotitis epidemica in the year 1911 | 420 |
| Ditto per 100,000 of the civil population | 0.65 |

III. Statistics of Diseases as Causes of all Cases of Sickness among the Population (*Statistics of the Causes of Total Morbidity*).

| | |
|---|---|
| Number of parotitis epidemica cases treated by doctors and field surgeons in 1911 : | |
| European Russia (including Poland) | 214.106 |
| Ditto per 100,000 of average population | 165.1 |

If we consider these heterogeneous statistics from the scientific point of view, it must be admitted that the statistics of causes of total morbidity alone enable any conclusions to be drawn as to the numerical incidence of a disease in a country. These statistics, therefore, represent the ideal morbidity statistics. It is an ideal which must remain purely theoretical, for it is not to be expected that any country will ever obtain a statistical registration of all persons suffering from the various diseases, because not all patients avail themselves of medical attendance.

It must, however, also be admitted that the importance of the causes-of-death statistics, from the point of view of determining the state of health of the whole population of the country, has hitherto been overestimated. The only explanation and excuse for this is that there was no better statistical material available. Actually, the only practical value of these statistics is that they help to explain the causes of variations in the general death rate, while they allow the case fatality to be estimated in respect of certain compulsorily notifiable diseases. But they are found sadly wanting if we wish to use them to estimate the health of the population at those periods of life when the death rate is naturally low. For those periods, therefore, it appears urgently necessary to seek some better statistical material, since we are here concerned with the largest and most important section of the population, viz., persons aged between 5 and 60, among whom the death rate is normally so low that only about 5 per 1,000 die at these ages.

Accordingly, causes-of-death statistics only furnish data for the cause of sickness among 5 per 1,000 persons between 5 and 60, and even then the information only refers to the final and fatal disease, whereas the statistics of total morbidity show that, out of 1,000 persons between these ages, approximately 400 fall ill in the course of a year. Thus, only 1/80th of these cases figure in the causes-of-death statistics.

This proportion is sufficient to emphasise the need and importance of statistics *showing* the causes of the incidence of disease.

## II. Present Situation in regard to Statistics on Causes of Morbidity.

The desirability of possessing statistics of the causes of morbidity has long been recognised. The interest of the State has hitherto generally been confined to the incidence of epidemic diseases, and these statistics have in recent years been given a tremendous impetus by the fact that the Health Organisation of the League of Nations began to collect the results from all countries and to group them in systematic and comparable form. No doubt the practical value of such statistics was only fully realised when they became international, for now the course of epidemics throughout the whole of the civilised world can at any time be ascertained.

The compilation of other statistics relating to the causes of morbidity has been entrusted by the State to its administrative organs or social insurance organisations. Among State institutions, the army and navy first began to compile these statistics. The technical organisations of the State, such as the posts and the railways, have only quite recently started to compile statistics of the causes of morbidity among their officials and employees. Such statistics are naturally of greater value in the case of sick-funds, which are able to furnish abundant data of the incidence of disease in respect of the bulk of the working population, provided that these data are compiled on a uniform basis.

Whereas all these statistics aim at determining the causes of morbidity fluctuations, the health statistics compiled in respect of school-children have for practical reasons nearly always paid more attention to static morbidity, that is to say, the statistical determination of chronic pathological symptoms. Such figures might allow valuable conclusions to be drawn as to pathological symptoms among the rising generation if they were established in accordance with a uniform scheme. Here, however, just as in the case of other statistics of the causes of morbidity, we find a general chaos, which for the present precludes any centralisation of data or any international comparison.

In addition to these statistics of the causes of morbidity among certain sections of the population, there are also in some countries Government statistics of the causes of morbidity among patients treated in hospitals, that is to say, statistics of the causes of clinical morbidity, such as are compiled in Germany. Although these statistics are primarily intended to illustrate the activities of the hospitals, they also furnish information as to the therapeutic results of treatment in hospital, by showing temporary variations in the case fatality of the different diseases.

We find an extension of the last-named statistics in the statistics of the causes of disease among patients treated in hospitals and at dispensaries, or in other words, *the statistics of the causes of clinical and out-patient morbidity*, which were introduced in Soviet Russia to replace the earlier statistics of total morbidity. The ideal form of statistics showing the causes of total morbidity for the whole population now exists only in Latvia.

What has been said sufficiently shows how disconnected and diverse must be the material relating to the causes of morbidity even within a single country, since these causes are calculated on a different basis by each statistical office and by each country. The question of international co-operation also in this sphere was first discussed at the Conference of Statistical Experts of the Health Section in March 1927 (see document C.H. 576). This Conference decided that the problem could not be dealt with until there was in every country an international survey of the present position in regard to the causes of morbidity. The Health Section undertook to prepare this survey, and the work is now in hand. It would therefore seem expedient to consider forthwith what an international health organisation might be able to do, in order, on the one hand, to arouse interest in morbidity statistics and, on the other hand, to place such statistics as already exist on as uniform a basis as possible, and, further, to ascertain how far the results may be expected to benefit individual countries, to increase statistical information regarding diseases, and thereby to advance medical science.

## III. The Need of Uniformity in Statistics of the Causes of Morbidity.

The soul of statistics is comparability, since comparison alone is capable of breathing life into dead figures and of suggesting new problems. The internationalisation of medical science resulted in an endeavour being made from the outset to compile medical statistics which would be comparable with one another. As medical statistics began with statistics of the causes of death, these endeavours were naturally directed towards obtaining comparability of these figures in particular. The first attempt was made at the first International Statistical Congress in 1853, and resulted—though only forty years later—in the establishment of a uniform classification and nomenclature of diseases and causes of death.

The use of this International List, however, has been almost exclusively confined to statistics of causes of death. From the very beginning, the real purpose of this List was to permit of a comparison between statistics of causes of death compiled by different countries.

The List began to be used for morbidity statistics only quite recently, and this necessitated numerous changes. As far as I know, this List (revised edition of 1920) served as the basis of the morbidity statistics of the German and United States army and navy and of the Berlin General Sick-Fund. This undoubtedly marks a great advance, which can only be properly appreciated when we study the historical evolution of the morbidity statistics of the army, the navy and sick-funds.

The fact that the health statistics of the army and navy are in every country compiled not by the central statistical authorities but by the Ministry of War means that these statistics have hitherto pursued an independent course and stand in no kind of relationship with the administrative statistics of the State. This dualism has even affected international efforts for the creation of a uniform classification of diseases, for at almost the same time as the International Statistical Institute set up a committee for this purpose, Section 18 (Army Health) of the Tenth International Medical Congress, which met in Berlin in 1890, entrusted a committee with the same work (see C.H. (Expert Stat.) 12). The latter committee was instructed to study a draft list of diseases which had been submitted to the Congress and which was intended to serve for the drawing-up of a report on health conditions in the armies of Europe, in other words, of army morbidity statistics.

As a matter of fact, an " International List for Statistics of the Causes of Morbidity in Armies " has been in existence since 1907 (see C.H. (Expert Stat.) 7), but it is so rudimentary that it has only been employed in a few countries ; most countries preferred to retain their own more detailed list for this purpose. It should be pointed out that this international list has no kind of connection with the International List of the International Statistical Institute, which was first revised in 1900.

The lists of diseases which served for the morbidity statistics of the sick-funds are still more arbitrary, since these statistics are compiled more from the business than the scientific point of view. The medical profession was hardly consulted at all in their compilation and they are therefore exceedingly rudimentary. However, the rapid development of social insurance in many countries indicates that here, too, international effort would be of advantage in order that the sick-funds might at least realise the great social importance of statistics of the causes of morbidity among the working population and the desirability of such statistics being compiled on a uniform basis.

Statistics so compiled would have to take the place of the ideal but hardly practicable form of statistics of the causes of total morbidity and to serve as the most important means of permanently supervising the health of a large part of the population. From the statistical point of view, such figures would be even more useful in practice than those of total morbidity causes, since both the number of insured persons and the number of cases of sickness—at any rate, so far as they result in incapacity for work—is accurately known. With the help of these statistics it would also be possible to determine the average period of sickness from each disease—which knowledge is indispensable if it is desired to estimate the economic importance of the different causes of morbidity and to take preventive measures against them.

One thing is certain, however, and that is that the International List is ill-suited to meet the needs of statistics of the causes of morbidity during the productive years of life.

Corresponding to the very different importance of a disease regarded as a cause of morbidity or as a cause of death, certain diseases occupy in the morbidity statistics a very different place from the position they hold in the mortality statistics. The morbidity statistics of the Berlin General Sick-Fund, already mentioned, which were compiled for the year 1926 in accordance with the International List, show that in the case of males the most frequent diseases were influenza, muscular rheumatism, neurasthenia and catarrh of the apex of the lung ; in the case of females, neurasthenia, other forms of anæmia and chlorosis, muscular rheumatism, catarrh of the apex of the lung and abortion, for some of which diseases the International List contains no rubrics. Since all diseases without rubrics have to be added to the collective number at the end of each group of diseases, these collective numbers frequently contribute the highest figures to the morbidity statistics, but they are useless in practice, because they cannot be analysed.

For the same reason, the International List is inadequate when used in the reports of hospitals. It is quite impossible to employ it for the reports of mental hospitals, because it only mentions one separate mental disease (general paralysis), all the others being grouped together under a collective number. As many countries already have special statistics of mental diseases, but each country employs a different system of classifying these diseases, uniformity appears particularly necessary in this branch.

The gradual development of welfare measures on behalf of infants, small children, and school-children has likewise revealed the need for special lists of diseases prevalent at these ages. As the care of school-children only consists in the medical supervision of children suffering from some defect or chronic disease or tendency to a disease, the list for this purpose must be otherwise composed than for the purpose of morbidity statistics of infants and small children. Hitherto, each country, and often each town, has compiled its own lists of diseases for these pruposes, owing to the total absence of any lists which could be used internationally.

The social and economic importance of some diseases is more narrowly delimited in the statistics of the causes of invalidity. In order to be able to determine the characteristics of these causes a special list is necessary also in this case to supplement adequately the morbidity statistics of the sick-funds. However, this problem has also not yet been dealt with internationally.

Accordingly, morbidity statistics are in the same chaotic condition as were formerly the causes-of-death statistics, when there was no uniform List of the Causes of Death and every country used a different list. Any international organisation which took up this problem would be doing a useful service. The work would first involve collecting the experience of the different countries in the different branches of morbidity statistics and in examining the possibility and expediency of drawing up uniform principles for the different kinds of morbidity statistics.

## IV. Conclusions.

It will be seen from the above that much would be achieved if the statistics of the causes of morbidity in the different countries were prepared from uniform lists of diseases. Further, it is clear that several lists are necessary for this purpose, for a single list which sought to meet the requirements of all morbidity statistics would assume enormous dimensions and be inconvenient in use. In order to take into account the various requirements and the varying development of statistical organisations in the different countries, it would be best to prepare for each kind of morbidity statistics two lists of diseases, a detailed list and an abridged list. Naturally, all special lists for the purposes of morbidity statistics would have to fit into the framework of the International List of Causes of Death, for only thus will it be possible to ascertain through statistics the importance of a disease or group of diseases according as it is a cause of morbidity or a cause of mortality.

For all these reasons, it is necessary to compile the following lists for the different kinds of statistics of causes of morbidity, drawing up in each case a detailed and an abridged list:

1. *List for the statistics of sick-funds;*
2. *List for the statistics of the army and navy;*
3. *List for the statistics of general hospitals;*
4. *List for lunatic asylums;*
5. *List for children's hospitals and for enquiries into the causes of morbidity and mortality among small children;*
6. *List for the medical inspection of school-children;*
7. *List of the causes of invalidity.*

It may be gathered from this enumeration that there are great differences not only in the purposes of the separate kinds of morbidity statistics but also in the classes of persons to whom the individual kinds apply, so that it is on the face of it impossible to contemplate a single list for all purposes. This is the fault of the International List, which only takes into account the simpler requirements of the causes-of-death statistics, but does not consider the more complicated needs of the different kinds of statistics of morbidity causes. It is obvious that this defect can only be remedied through the compilation of special lists of diseases to serve the purposes of the different kinds of morbidity statistics. Such special lists should not only make it possible to compare the results of already existing morbidity statistics in the different countries with one another, but should also provide a strong incentive to other countries to establish statistics of the same kind.

ANNEX 144h

# REPORT ON THE WORK OF THE INTERNATIONAL RABIES CONFERENCE

*Held at the Pasteur Institute, Paris, April 25th to April 30th, 1927.*

## I.

As a result of proposals made on several occasions, the Health Committee, at its sixth session in April 1926, adopted the following resolution :

" The Health Committee decides to take steps to convene in 1927 at the Pasteur Institute in Paris, an International Conference on Rabies to which the directors of the chief anti-rabic institutes of the world will be invited. "

## II.

Accordingly a Conference was convened at the Pasteur Institute, Paris, on April 25th, 1927. To this Conference had been invited the Directors of the principal Anti-rabic Institutes of all countries and other experts. Fifty-seven delegates were present from twenty-six countries (Appendix 1).

## III.

As a preparatory measure, a detailed questionnaire had been prepared and sent to the various anti-rabic institutes. This questionnaire dealt with important problems connected with the nature of the rabies virus, anti-rabic treatment and the prevention of rabies among the lower animals.

On the basis of replies to the questionnaire submitted by several Institutes, Professors Marie, Remlinger and Vallée prepared a summarised report (document C.H.531) which, together with the replies received from sixty-two Institutes, were considered by the Conference (Appendix 2).

## IV.

The Conference was opened by Dr. Roux, Director of the Pasteur Institute, who presided over the plenary sessions. Dr. Th. Madsen, President of the Health Committee, welcomed the delegates on behalf of that Committee and expressed to Dr. Roux its appreciation for the invitation to hold the Conference in the Pasteur Institute, founded in honour of the great scientist who had originated anti-rabic treatment.

The agenda of the Conference was as follows :

1. The nature of rabies virus.

2. The methods of inoculating persons after they have been bitten. Various modifications of the Pasteur treatment.

3. General and local accidents consequent upon anti-rabic inoculation. Post-vaccinal paralysis.

4. The problem of inoculating domestic animals which have been bitten and the preventive inoculation of dogs.

5. The necessity for preparing upon a uniform basis statistics concerning the results obtained from anti-rabic treatment.

6. Miscellaneous questions (*e.g.*, experimental control of the immunising value of various methods of anti-rabic treatment; legislation in force in the various countries).

## V.

Professor Calmette, Deputy-Director of the Pasteur Institute, outlined for the Conference the task which lay before it, and suggested that the work be divided among four commissions as follows :

First Commission to consider the Nature of the Virus;

Second Commission to consider the Methods of Treatment;

Third Commission to consider the Accidents of Treatment;

Fourth Commission to consider the Prevention of Rabies among Animals.

*This proposal was adopted.*

VI.

The Conference nominated the following officers for these Commissions :

*First Commission :*

Chairman : Professor Kraus.
Rapporteur : Professor Marie.
Co-Rapporteur : Dr. Douglas.

*Second Commission :*

Chairmen : Professor Bujwid and Dr. McKendrick.
Rapporteur : Professor Marie.
Co-Rapporteur : Professor Praussnitz.

*Third Commission :*

Chairmen : Professor Pfeiffer and Dr. Zlatogoroff.
Rapporteur : Professor Remlinger.
Co-Rapporteur : Lt.-Col. Taylor.

*Fourth Commission :*

Chairmen : Professor di Vestea and Professor Kitashima.
Rapporteur : Professor Vallée.
Co-Rapporteur : Professor Finzi.

VII.

The Second and Third Commissions were subsequently amalgamated, as the subjects under consideration are intimately related.

VIII.

The reports of the four Commissions were adopted by the Conference at the final plenary meeting held on the afternoon of April 30th, under the presidency of Professor Roux. At this meeting, Professor Calmette summarised the results obtained and emphasised the value of such a Conference. The hope was expressed that it might be possible to organise a second International Conference on Rabies some two years hence. The Conference was brought to a close by expressions of appreciation from Dr. Madsen and a number of delegates of the work accomplished and of the value of the co-operation of the Pasteur Institute of Paris, which had contributed so largely to the success of the Conference.

Resolutions adopted by the Conference.

*I. Nature of Rabies Virus.*

1. The Commission considers that the rabic virus is a filtrable virus ; the difficulties sometimes experienced in the filtration are due to the clogging of the " bougies " by fatty globules contained in the emulsion of nervous tissue and to the small size of the pores of the filters.

2. The Commission, after examining the microscopic preparations presented by Professors Levaditi and Manouélian, does not consider it desirable to pass an opinion as to the nature of the virus and decide whether it is a protozoon or a bacterium.
It does not consider itself in a position to decide whether Negri bodies represent a stage in the evolution of a living micro-organism or are produced by cellular reaction or degeneration.

*II. Anti-Rabic Vaccination.*

The Conference, having considered the results obtained by the various methods of anti-rabic treatment now employed in the different Institutes represented at the Conference and the advantages and disadvantages of each, have arrived at the following conclusions :

1. There is unanimity of opinion regarding the efficiency of Pasteur treatment by the original dried cord method and by the glycerinated cord method of immunisation.

2. It is also agreed that living fixed virus injected under the skin is innocuous to man in the vast majority of cases ; in exceptional circumstances, however, it may be infective. For this reason, certain Institutes have adopted the use of a dead or attenuated vaccine. Such vaccines, killed or attenuated either by carbolic acid or ether, produce a satisfactory immunity.

3. The etiology of paralytic symptoms which have, in rare cases, been observed as a sequel of anti-rabic inoculations, have been fully discussed and the experiences of the different Institutes regarding this matter have been compared.

In the present stage of our knowledge, it is not possible to make definite assertions as to the etiology of these phenomena.

Among predisposing causes, alcohol, syphilis, neuropathic constitution, cold, fatigue and overwork are important.

The symptoms have been most commonly observed in persons of between 20 and 60 years of age, belonging to intellectual professions. Cases have been relatively rare among the indigenous races of tropical countries and among children.

Such paralytic accidents are less frequent if glycerinated or carbolised vaccines be employed.

The brain of every human case that has died of intercurrent disease, during or shortly after the termination of treatment, should be examined for the presence of street or fixed virus. Such examination is specially important if the case has exhibited paralytic symptoms.

4. Opinion is equally divided as to the necessity of submitting to anti-rabic treatment persons whose skin has come into contact with the saliva of a rabid animal (or human being suffering from hydrophobia), if there be no visible break in the continuity of the skin surface.

The majority of the Conference are agreed as to the necessity for treatment whenever a mucous membrane has been contaminated in this manner.

5. The Conference recommends that comparative tests on a large scale be carried out in certain selected Institutes with vaccines killed by carbolic acid and ether; other methods might subsequently be tested in similar manner.

6. The Conference recommends that enquiries be made into the plurality of strains of street and fixed virus, and into the rabicidal action of the serum of man and animals during and after immunisation.

Special interest attaches to the detailed investigation of strains of street virus in cases where, in spite of apparently slight risk, treatment fails.

7. The Conference requests the Health Organisation of the League of Nations to consider the possibility of organising the investigations described in paragraphs 5 and 6, and of arranging for the collection and distribution, to the various Institutes of the world, of information relating to rabies.

8. The League's Health Organisation is requested to arrange with one or more Institutes that preliminary investigations be carried out with the object of supplying all Anti-rabic Institutes with a strain of fixed virus of high protective value.

9. It is desirable also that the different Institutes should send, from time to time, their own strains of fixed virus to a specially selected Institute for comparative tests.

It is further recommended that Anti-rabic Institutes should examine at regular intervals the strains of fixed virus in use to ensure that their virulence has undergone no modification.

10. The Health Organisation of the League is invited to publish statistics of the results of anti-rabic treatment in the different Anti-rabic Institutes of the world. To this end, every Pasteur Institute should send each year its statistics tabulated according to a schedule to be drawn up by the Health Organisation. Each Institute should report its *total* mortality. In this connection, it is desirable that each Institute should follow the after-history of its patients for at least six months, and whenever possible, for a period of one year after the termination of treatment; the co-operation of the local authorities should be enlisted for this purpose. Each Institute should intimate what it has been able to do regarding this matter.

Each Institute should analyse the *total* mortality with regard to the following factors:

(*a*) Species of biting animal;

(*b*) Evidence of rabies in biting animal (categories A, B, C, D);

(*c*) Whether the infection was due to deep or superficial lesion, or whether there was no visible lesion;

(*d*) Bitten through bare skin or clothing;

(*e*) Position of bite (head, arm, trunk, legs) (multiple bites to be classed according to the site of greatest danger);

(*f*) Interval between bite and commencement of treatment: under four days, four to seven days; over seven days.

Any change in the method of treatment should be reported. All paralytic accidents should likewise be reported with full details, whether such accidents prove fatal or not.

Separate statistics should be supplied for patients treated in Institutes and for those treated outside.

### *III. Prevention of Rabies in Animals.*

*Dogs and Cats.*

In spite of the importance of the results already acquired in the study of anti-rabic vaccination of the various animal species, and the large number of animals already successfully vaccinated, the Conference does not consider that it is in a position to propose important changes in sanitary legislation. Nevertheless, the Conference considers it desirable that :

1. Dogs be given prophylactic vaccination against rabies; such vaccination, as far as possible, should consist of a single inoculation of a dead virus (still capable of conferring immunity), or of a fixed virus, modified or not, which is not pathogenic to the dog when inoculated subcutaneously or intramuscularly;

2. This prophylactic vaccination should be repeated each year;

3. Such vaccination — at least in the beginning — should be applied in anti-rabic institutes, schools of veterinary medicine or by the local veterinary authority concerned;

4. The administrative supervision should be such as to provide for the enumeration of vaccinated dogs and their inspection by a veterinary authority at the end of the fourth month following vaccination;

5. All administrative supervision may be relaxed after a sufficient number of dogs have been properly vaccinated;

6. The employment of vaccination among dogs exposed to infection should, in suitable cases, permit of relaxation of the sanitary regulations, and that measures applied to bitten animals should be graded as follows :

Dogs bitten by animals known to be rabid shall be destroyed even if previously vaccinated;

Dogs which are only suspected of having been bitten may be vaccinated on condition that they be isolated for six months;

7. Prophylactic or curative vaccination of cats should never be employed.

*Other Animals.*

It is desirable that :

1. Prophylactic vaccination of animals other than domestic carnivora be practised only in areas where rabies is particularly prevalent;

2. In such vaccination the virus should be either a killed virus (still capable of conferring immunity) or a modified or unmodified fixed virus;

3. Vaccination after the animal has been bitten be recommended;

4. In such vaccination, the vaccines used should be those indicated in paragraph 2;

5. Such vaccination should be given during the four days following the bite, or at the latest before the tenth day;

6. Animals bitten by rabid animals, whether treated or not after the bite, should not be butchered between the eighth day and, at the very least, the end of the third month following the bite.

* * *

In the opinion of the Conference, the only measures that will completely eradicate rabies are the restriction of the liberty of the dog, unless muzzled, to the premises of the owner and the destruction of the ownerless dog, and it recommends that these measures be embodied in the legislation of the various countries.

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**Appendix 1.**

List of Participants in the International Rabies Conference.
Pasteur Institute, Paris, April 25th-30th, 1927.

*Austria.*

Dr. B. Busson, Director of the State Anti-Rabic Institute, Vienna.
Dr. F. Gerlach, State Veterinary Institute, Vienna.
Professor R. Kraus, Director of the Institute of Serotherapy, Vienna.
Professor J. Schnürer, Graduate Veterinary School, Vienna.

*British India.*

Lt.-Col. J. Taylor, Director of the Pasteur Institute, Burma, Rangoon.

*Canada.*

Dr. J. G. Fitzgerald, Director of the Connaught Laboratories, Toronto.

*Ceylon.*

Dr. L. Nicholls, Director of the Pasteur Institute, Colombo.

*China.*

Dr. Wu-Lien-Teh, Chief of the Plague Prevention Service of North Manchuria, Harbin.

*Colombia.*

Dr. Edmundo Rico, Hygienic Laboratory at Bogotá.

*Cuba.*

Dr. Ramon Lorenzo, Director of the Pasteur Institute, Santa Clara.

*Egypt.*

Dr. S.G. Moftah Bey, Director of the Anti-Rabic Institute, Cairo.
M. I. Saroit, Egyptian Legation, Paris.

*Federated Malay States.*

Dr. G. H. MacAlister, Pasteur Institute, Singapore.

*France.*

Professor P. P. E. Roux, Director of the Pasteur Institute, Paris.
Professor A. Calmette, Deputy-Director of the Pasteur Institute, Paris.
Dr. L. Cruveilhier, Anti-Rabic Service of the Pasteur Institute, Paris.
Dr. G. Ichok, Pasteur Institute, Paris.
Professor C. Levaditi, Chief of the Micro-Biological Service, Pasteur Institute, Paris.
Dr. Manouélian, Anti-Rabic Service of the Pasteur Institute, Paris.
Professor A. Marie, Pasteur Institute, Paris.
Dr. A. L. Panisset, Veterinary School, Alfort (Seine).
Professor H. Vallée, Research Laboratory of the Veterinary School, Alfort (Seine).

*Germany.*

Professor F. Neufeld, President of the Robert Koch Institute, Berlin.
Professor J. Koch, Director, Anti-Rabic Section of the Robert Koch Institute, Berlin.
Dr. E. Wehrle, Special Councillor to the Health Administration of Germany, Berlin.
Professor R. Pfeiffer, Professor of Hygiene at the University, Breslau.
Professor C. Praussnitz, Professor of Hygiene and Director of the Institute of Hygiene of the University, Breslau.

*Great Britain.*

Dr. W. H. Andrews, Director of Research, Laboratory of the Ministry of Agriculture and Fisheries, London.
Captain S. R. Douglas, Head of the Department of Experimental Pathology, Bacteriology and Protozoology at the National Institute for Medical Research, London.
Lt.-Col. A. G. McKendrick, Royal College of Physicians Laboratory, Edinburgh.
Dr. W. M. Scott, Ministry of Health, London.

*Hungary.*

Dr. E. Went, Director of the Pasteur Institute, Budapest.

*Iraq.*

Dr. E. A. Mills, Central Laboratory, Baghdad.

*Italy.*

Professor C. Fermi, Director of the Anti-Rabic Institute, Sassari.
Professor G. Finzi, Director of the Royal Graduate Veterinary School, Milan.
Dr. S. Lumbau, Anti-Rabic Institute, Sassari.
Professor V. Puntoni, Director of the Anti-Rabic Institute, Rome.
Professor A. di Vestea, Director of the Hygiene Institute of the University, Pisa.

*Japan.*

Dr. A. Iizuka, Veterinary Laboratory of the Ministry of Agriculture, Tokio.
Dr. N. Kii, Member of the Government Institute for Infectious Diseases, Tokio.
Professor T. Kitashima, Assistant Director of the " Kitasato " Institute for Infectious Diseases, Tokio.
Dr. Y. Kusama, Assistant Professor of Hygiene and Public Health, the " Kitasato " Institute for Infectious Diseases, Tokio.

*Morocco.*

Dr. P. Hornus, Director of the Anti-Rabic Centre, Rabat.
Dr. P. Remlinger, Director of the Pasteur Institute of Morocco, Tangiers.

*Netherlands.*

Professor D. H. Aldershoff, Director of the State Serological Institute, Utrecht.

*Poland.*

Professor O. Bujwid, Director of the Anti-Rabic Institute, Cracow.
Dr. N. Gasiorowski, Director of the Hygienic Institute, Lwow.
Drsse. Jurgielewicz, Veterinary Institute, Warsaw.
Dr. Z. Karlowski, Director of the Anti-Rabic Section of the State Hygienic Institute, Warsaw.

*Portugal.*

Dr. E. Pereira da Silva, Head of Department, Camara Pestana Institute, Lisbon.

*Serbs, Croats and Slovenes (Kingdom of the).*

Dr. A. Hempt, Director of the Pasteur Institute, Novi-Sad.
Dr. S. M. Palmovic, Director of the Pasteur Institute, Zagreb.

*Shanghai.*

Dr. J. M. Jordan, Health Department of the City Council, Shanghai.

*Sweden.*

Dr. C. A. Kling, Director of the State Bacteriological Laboratory, Stockholm.

*Switzerland.*

Professor G. Sobernheim, Director of the Institute of Hygiene and Bacteriology, Berne.

*United States.*

Dr. T. Clark, United States Public Health Service.
Dr. A. Seidell, Hygienic Laboratory of the United States Public Health Service, Washington.
Dr. C. A. Shore, Director of the State Hygienic Laboratory, Raleigh, N. Carolina.

*U.S.S.R.*

Professor S. Zlatogoroff, Director of the Sanitary Institute of Bacteriology, Kharkov.

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**Appendix 2.**

Documents prepared for the Conference.

| *Document number.* | *Description of Documents.* |
|---|---|
| C.H. 487. | Questionnaire relating to Anti-Rabic Vaccination. |
| C.H. 487 (*a*). | Answers to the questionnaire from the Institutes of the following countries :<br>France (Lille).<br>Germany (Berlin and Dresden).<br>Great Britain (London).<br>Hungary (Budapest).<br>Italy (Rome).<br>Poland (Cracow).<br>Switzerland (Berne).<br>Tunis (Tunis). |
| C.H. 487 (*b*). | Answers from the Palermo Anti-Rabic Institute. |
| C.H. 487 (*c*) | Answers from the Institutes of the following countries :<br>Argentine Republic (Buenos Ayres).<br>Austria (Vienna).<br>Egypt (Cairo).<br>Poland (Lwow). |
| C.H. 531. | *Preliminary Reports by MM. Marie, Remlinger and Vallée.* |
| C.H. 538. | Note on the Agenda of the International Rabies Conference presented by the United States Public Health Service. |

C.H. 539. Report on Canine Anti-Rabies Vaccination in Malaya by A. Neave Kingsbury.

C.H. 562. Note concerning the Statistics of Anti-Rabic Treatment by Dr. Otten, Director of the Pasteur Institute at Bandoeng (Java).

C.H. 487 (*d*). Answers to the questionnaire received from the Institutes of the following countries :

China (Shanghai).
Germany (Breslau).
Latvia (Riga).
Netherlands (Utrecht).
Poland (Warsaw).
Portugal (Lisbon).
Kingdom of the Serbs, Croats and Slovenes (Novi-Sad).

C.H. 571. Provisional Agenda.

C.H. 487 (*e*). Answers to the questionnaire received from British India :

Part I : Kasauli.

Part II : Calcutta. Rangoon. Shillong. Conoor.

Part III : Haffkine Institute of Parel, Bombay.
Veterinary College of Bombay.
" " Calcutta.
" " Lahore.
" " Muktesar.

C.H. 487 (*f*). Answers to the questionnaire received from Indianapolis, U.S.A.

C.H. 487 (*g*). Answers to the questionnaire received from the Institutes of the following countries :

Roumania (Bucharest, Jassy).
Siam (Bangkok).

C.H. 487 (*h*). Answers to the questionnaire received from the Institutes of the following countries :

Dutch East Indies (Bandoeng).
French Indo-China (Saigon).
Italy (Milan).
United States (Columbus (Ohio), Philadelphia (Penn.).
U.S.S.R. (Kharkov).

C.H. 487 (*i*). Answers to the questionnaire received from :
Japan (Tokio).

C.H. 487 (*j*). Reply from the Veterinary High School of Vienna (Austria).

C.H. 487 (*k*). Answers to the questionnaire received from the Institutes of the following countries :

China (Japanese Concession, Mukden).
Chosen (Keijo).
Hong-Kong.
Japan (Tokio).
Manchuria (Dairen).

C.H. 487 (*l*). Answers to the questionnaire received from the Institutes of the following countries :

Algeria (Algiers).
Madagascar (Antananarivo).
Palestine (Jerusalem).

C.H. 487 (*m*). Answers to the questionnaire received from the Institutes of the following countries :

Cuba (Santa Clara).
Iraq (Baghdad).
Italy (Bologna).
Kingdom of the Serbs, Croats and Slovenes (Serajevo).
U.S.S.R. (summary of the answers furnished by 27 Institutes).

**ANNEX 145.**

C. H. 642.

# INTERNATIONAL NOTIFICATION OF SMALLPOX IN EUROPE.

Geneva, October 19th, 1927.

*Memorandum by the Health Section.*

The smallpox situation in Europe has undergone so complete a change during the last ten years that a reconsideration of the methods of international exchange of information on smallpox seems required. Until quite recently, smallpox cases were numerous and the information from other countries merely gave the numbers of cases, thereby showing prevalence of the disease ; but smallpox has now become so rare in most countries of the European continent that the source of infection might be detected without much difficulty in each case. This would give the administrations an opportunity of dealing effectively with the last remnant of infection.

In 1921, nearly 20,000 cases of smallpox were reported in Europe outside Spain, Great Britain and the Union of Socialist Soviet Republics. In 1926, there were less than 700 smallpox cases on the European continent outside the Union of Socialist Soviet Republics. While this reduction of smallpox was going on on the Continent, the incidence of smallpox of a mild type was increasing very considerably in England and Wales ; over 10,000 cases were reported in 1926 and nearly 10,000 during the first half of 1927. This mild type of smallpox, which gave rise to an outbreak in Switzerland, lasting a few years, seems now to be rare on the Continent. It would seem safe, in the absence of definite information regarding type, to consider all cases now occurring on the European continent as being of the classical type. These cases, though few, represent therefore a considerable danger, especially to an insufficiently vaccinated country like England. In fact, the small outbreaks of severe smallpox which occurred in London last year were proved to have been imported from Paris.

It will be seen from the appended table that smallpox is now practically non-existent in an area including the Scandinavian and Baltic countries, Germany, Austria, Hungary and the Balkans. Its incidence has decreased enormously also in Poland, where there were only 69 cases in 1926, as compared with 5,078 in 1921. The incidence of smallpox in Spain has been very rapidly reduced during the last five years and the reduction has been almost equally marked in Italy. An increase of cases of the severe type occurred, on the other hand, in France. Most of this infection is believed to have been introduced from Algeria, where smallpox has been epidemic for several years.

Admitting that the local endemic smallpox which still exists in continental Europe could be brought under control and considering only the severe type of the disease, a danger exists of infection being brought : (1) from the east ; and (2) from the south. The danger of infection from Russia is probably not very great. Smallpox is decreasing rapidly in Russia also, and the epidemics which have occurred during the last couple of years have been largely confined to the eastern part of the country. Communications between Russia and the rest of Europe are now somewhat restricted—except possibly in the frontier districts—and it is a fact that an exceedingly small number of smallpox cases are now reported in the States bordering Russia (in 1926, no case was reported in Finland or in Estonia ; 3 cases each in Latvia and Lithuania ; 69 in Poland ; 6 cases in Roumania and 1 in Bulgaria). The recent outbreaks in France prove that there is more danger of infection being introduced from North Africa.

The International Sanitary Convention of 1912, still in force, contains no reference to smallpox. The 1926 Convention, which is not yet ratified, requests in Article I, 3rd paragraph, the notification of the existence of an epidemic of smallpox. No definition of the term " epidemic " is given and it may safely be said that none of the outbreaks occurring in Europe, outside England and the Union of Socialist Soviet Republics, in 1926 and so far in 1927, could be considered as an epidemic warranting notification under the Convention.

The monthly and weekly *Epidemiological Reports* of the Health Section contain information on the number of smallpox cases reported each week or month in the various countries, but not on the type of disease and probable source of infection, because such information is not received. This information would be most valuable and it is therefore proposed to ask the health administrations of the various European continental countries, exclusive of the Union of Socialist Soviet Republics, to supply at the earliest possible date full information regarding each individual case of smallpox occurring on their territory. It would also be important to obtain information from the United Kingdom on cases of the severe type only. In order to obtain comparable information, a form would have to be prepared to be filled in for each case. The following routine is suggested :

1. Each health administration would be asked to take steps to send the Health Organisation of the League immediate and full information on each case of smallpox occurring within its territory.

2. There would be great advantage in furnishing this information on a standard form supplied by the Health Section.

3. The forms, when returned duly filled in, should be immediately reproduced in full by the Health Section and sent by mail to all the other European countries.

4. Comments might be circulated by the Section whenever warranted. An examination of the material at the end of each year by a small group of epidemiological experts employed by the Health Section might be of value.

5. It would obviously be impossible to expect information on individual smallpox cases from England, the Union of Socialist Soviet Republics and North Africa, because it would demand a very large number of notifications, but complete weekly records of the number of smallpox cases by administrative divisions should be obtained from these countries and circulated together with the forms.

The extra work demanded on the part of the health administrations would not be very considerable. In most countries, only one, two or three certificates a year would be required. Judging from the incidence of smallpox in 1927, more than 100 certificates a year would be required only from France. A copy of the proposed notification certificate is appended (Appendix III).

Action is becoming urgent, as the smallpox season is just now beginning.

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## Appendix I.

SMALLPOX CASES REPORTED IN EUROPE 1924-27.

| | 1924 | 1925 | 1926 | Jannary-June 1926 | Jannary-June 1927 |
|---|---|---|---|---|---|
| Austria | 0 | 0 | 0 | 0 | 0 |
| Belgium | 31 | 12 | 13 | 6 | 0 |
| Bulgaria | 5 | 0 | 1 | 0 | 2 |
| Czechoslovakia | 2 | 1 | 1 | 3 | 5 |
| Denmark | 25 | 0 | 0 | 0 | 0 |
| England and Wales | 3,765 | 5,365 | 10,155 | 5,632 | 9,930 |
| Estonia | 4 | 5 | 6 | 4 | 0 |
| Finland | 1 | 2 | 1 | 0 | 0 |
| France | 210 | 456 | 554 | 237 | 348 |
| Germany | 116 | 24 | 7 | 2 | 2 |
| Gibraltar | 6 | 3 | 0 | 0 | 0 |
| Greece | 250 | 16 | 27 | 20 | 87 |
| Hungary | 1 | 2 | 1 | 1 | 3 |
| Italy | 432 | 195 | 112 | 75 | 27 |
| Latvia | 25 | 17 | 3 | 3 | 1 |
| Lithuania | 58 | 12 | 3 | 1 | 1 |
| Luxemburg | 0 | 0 | 2 | 0 | 0 |
| Malta | 0 | 84 | 20 | 20 | 0 |
| Netherlands | 3 | 2 | 13 | 3 | 0 |
| Norway | 0 | 1 | 0 | 0 | 2 |
| Poland | 861 | 77 | 69 | 37 | 27 |
| Roumania | 9 | 28 | 6 | 2 | 0 |
| Scotland | 4 | 2 | 0 | 0 | 155 |
| Kingdom of the Serbs, Croats and Slovenes | 330 | 14 | 4 | 3 | 3 |
| Spain (deaths) | 1,214 | 851 | 114 | 76 [1] | 5 [1] |
| Sweden | 1 | 0 | 0 | 0 | 0 |
| Switzerland | 1,234 | 331 | 57 | 48 | 1 |
| Ukraine | 1,188 | 501 | 278 | 127 [2] | 79 [2] |
| U.S.S.R. (other European territories) | 20,412 | 10,927 | 9,946 | — | — |
| Algeria | 483 | 1,747 | 2,473 | 1,375 | 1,404 |
| Egypt | 799 | 762 | 2,677 | 2,111 | 216 |
| Tunis | 606 | 1,270 | 188 | 141 | 42 |

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## Appendix II.

SMALLPOX CASES REPORTED IN EUROPE 1921-26.

| | U. S. S. R. | Great Britain | Other Countries |
|---|---|---|---|
| 1921 | 96,626 | 421 | 19,408 |
| 1922 | 51,934 | 980 | 6,835 |
| 1923 | 32,843 | 2,488 | 4,654 |
| 1924 | 21,600 | 3,709 | 3,253 |
| 1925 | 11,428 | 5,365 | 1,190 |
| 1926 | 10,592 | 10,155 | 668 |

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[1] Three months, January-March.

[2] Five months, January-May.

**Appendix III.**

CERTIFICATE FOR INTERNATIONAL SMALLPOX NOTIFICATION.

Country..... Year..... Smallpox case No..... Date.....
Province..... District..... Town or village.....
Address.....
Sex..... Age (last birthday).....
Date of first vaccination..... Dates of successful revaccinations.....
Condition of vaccination scars.....
Type of case : mild, severe, confluent, hæmorrhagic
(underline proper term or add description).....
.....
Complications.....
Recovery or death (additional certificate with number of original certificate quoted to be sent containing this information in case death occurs after the receipt of original certificate).....
Other cases in same household : previous : Mild : ..... Severe : .....
simultaneous or subsequent : Mild : ..... Severe : .....
Is the patient known to have been in contact with other cases of smallpox (give particulars).....
Mild : .....
Severe : .....
If not, state probable source of infection.....
.....
Number of previous cases in same district or town :
Mild : ..... Severe : .....
Remarks : .....
.....
Attending physician : ..... Address : .....
(The form should preferably be filled in on typewriter or at any rate clearly written, and be in French, English, German, Italian or Spanish.)

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**ANNEX 146.**

C.H. 661.

## CONFERENCE HELD AT THE INAUGURATION OF THE SCHOOLS OF PUBLIC HEALTH AT BUDAPEST AND ZAGREB.

*Report by Professor Léon Bernard.*

Geneva, October 27th, 1927.

[*Translation.*]

At the inauguration of the Budapest and Zagreb Schools of Public Health, a Conference was held by the Directors of the Schools of Public Health and certain members of the Health Committee. Four meetings took place, first at Budapest and subsequently at Zagreb, between September 29th and October 4th. Very able reports had been prepared in advance, and discussions took place leading to genuinely important conclusions, which I propose to analyse briefly in this report.

I shall deal in turn with each of the four questions of which the Conference's agenda was composed.

### 1. COMPARATIVE STUDY OF PROGRAMMES OF SCHOOLS OF PUBLIC HEALTH.

This question had been treated in a very fully documented report by Professor Pelc, Director of the Prague School of Public Health, who summarised the programmes of the different schools and special university courses now in existence. In addition, our distinguished colleague Dr. Chodzko, whose contributions to the Conference were extremely valuable, had made a lucid analysis of the subjects embraced by the programme he had introduced at the Warsaw School. Dr. Stampar also had explained in an admirable report the programme he proposed to introduce in the Zagreb School. In mentioning Dr. Stampar's name for the

first time, it is my duty to give expression to the admiration felt by all who have had the privilege of observing his magnificent achievement in bringing about the peaceful conquest of an entire people through public health work.

Consideration of these reports and the discussion which followed led to the conclusion that no system of uniform programmes for all such schools could be contemplated. Many and various factors enter into the question : the position and stage of development of the school itself ; the material, technical and social conditions under which it has to pursue its aims ; the stage of progress reached by the national health institutions for which it has to provide ; the standard of education previously attained by its students ; and, lastly, the customs and ethnography of the peoples among whom the experts trained at the school will be called upon to work.

Desirable though it is that these programmes should be as comprehensive as possible, strict limits are imposed by the possibilities of obtaining students and by the closely kindred question of their prospects of future employment ; moreover, since the school of public health has to provide the public health administration with what may be described as its tools, its development is necessarily dependent upon that of the national health organisation.

Consequently, while the programmes of all the schools should be based on certain general principles and while the broad framework of their constitution should be uniform in view of the community of their purposes, the methods of applying those principles and the number, duration and standard of the subjects taught must vary with local conditions.

In support of this conclusion, it is only fair to pay a tribute to the wide scope and high standard of the instruction given in the numerous departments of the School of Public Health at Johns Hopkins University, where Professor Welch has achieved the most complete model, the highest ideal, of an institution of this kind. At the same time, such perfection as this, admirably adapted to the needs and the vast size of the United States, could not be aimed at by institutions which for various reasons are necessarily conceived on a more modest scale.

## 2. Methods of obtaining Students for Schools of Public Health.

This discussion opened on a report by Dr. Chodzko, in whose view the school of public health should comprise four groups of students—namely, medical officers of health, panel doctors, private practitioners and social workers.

As regards the first group, the question is already settled in certain countries, where the Government requires that its officers—in Great Britain the municipal medical officers also—should hold the diploma of a special school. This is the only rational and sound system. It is sound from the point of view of the schools, because if candidates for posts must have passed through them, their prosperity is assured ; and it is sound from the point of view of public health, because the efficiency of experts trained in special schools is guaranteed.

It is regrettable that this rule has not been adopted in every country. It seems beyond question that the health administration of a country, being responsible for the public health, is in duty bound to employ only reliable and competent agents ; therefore the health administration should require its officials to undergo special training—a measure which, incidentally, provides the schools of public health with some of their students.

Dr. Chodzko rightly emphasised the great importance of instituting in such schools special courses in preventive medicine for panel doctors. He quoted Sir George Newman's suggestive statistics showing that, in one part of England, out of 107,795 panel patients treated in 1924, 76 per cent were suffering from preventable diseases. Applying the same process of calculation to the 3,048,397 patients treated in 1925 by 159 insurance funds in Poland, Dr. Chodzko found that 63 per cent of the cases could be regarded as preventable. It would therefore be most desirable, in the interests both of public health and of sound economics and finance, that panel doctors should be trained in the precepts and practice of preventive medicine. At Warsaw, our colleague made an agreement with the local sickness-insurance fund (which has more than 400,000 members) and with the municipal health service and the State railways, for the organisation of a course in preventive medicine for the doctors employed by them.

As regards the medical faculty in general, I do not personally think it can or, indeed, should be directly influenced by the schools of public health ; indirectly, a great number of practitioners will benefit from the work of the schools by belonging to some social organisation which will require this special training. My chief hope, however, is that henceforward the spirit of preventive medicine will filter through from the school of medicine into the teaching of the various branches, and that all professors in the Faculties will in this spirit help to develop in future practitioners a new mentality with a bias in this direction.

It is also important that social workers of various kinds should be attracted to the schools of public health by courses suited to their needs and standard of education ; teachers should be encouraged to attend the schools and pass on what they learn to their pupils, and hence to the mass of the population. This class of students is rapidly increasing at Warsaw.

Most valuable service in the matter can be done by the richly documented museums of popular education which we had the opportunity of admiring in the Kingdom of the Serbs, Croats and Slovenes, particularly at Zagreb and Ljubljana.

Lastly, Dr. Stampar demonstrated that the inclusion in the governing bodies of schools of public health of representatives of various corporate groups—teachers, traders, peasants, workmen, etc.—made it considerably easier to attract students and hence increased the vitality of the schools.

### 3. Relations between Schools of Public Health and Universities and Public Health Services.

The discussion of this question, the importance of which needs no emphasis, was opened by Professor Welch. The distinguished Baltimore professor traced the historical evolution of didactic conceptions of public health, which has passed through three stages, each having as its essential characteristic a different objective—first the sanitation, then the prevention of disease, and finally social hygiene. The constant extension of the field of public health has led to the need for special schools able to embrace the whole of this large, complex and varied system of subjects.

Professor Welch is of opinion that when students enter these schools they should do so with knowledge, principles and a scientific spirit acquired in the Faculties, and that schools of public health should confine their work to the application of these general principles to a special purpose.

In his view, therefore, these schools should constitute an independent formation and should simply be in touch with the universities and with the public health administrations.

Others, including Dr. Stampar, consider that the health administrations, being responsible for the public health, should undertake to establish and direct the schools of public health, so that they can train their own officials. That is the method that has been followed in the Serb-Croat-Slovene institutes of public health ; but they have linked their work with that of the universities in the manner most advantageous to both. Thus, at Zagreb, the University Professor of Public Health occupies large premises at the institute, where he gives his lectures : he has the institute's technical resources at his disposal, and in return he imbues the institute with a spirit of research and scientific co-operation which cannot but enhance its prestige and stimulate its vitality.

In different circumstances, of course, if there is a local insufficiency of material resources for the school of public health, or if the university has a traditional or legal pre-eminence, it will be expedient for the school of public health to be officially incorporated in the university, or even in the Faculty of Medicine.

Two criticisms which were made on this point should be examined. It was argued that the Faculties of Medicine should be responsible for the teaching of curative medicine, and the schools of public health for that of preventive medicine. To my mind, nothing could be more pernicious, more prejudicial to the establishment of a health policy and to the future of a popular public-health campaign than such a definite system of dualism. That the schools of public health are not concerned with therapeutics needs no emphasis—though it must be remembered that in many diseases, such as diphtheria, malaria and syphilis, prophylaxis involves therapeutic measures. But it is certainly imperative that the teaching given in Faculties of Medicine should be mainly directed to preventive medicine ; for only under such a system can it be hoped that medical practitioners will co-operate with the officials of the public health services, and that eventually we shall be able to record genuine progress in public health as the outcome of the concerted action of all medical forces.

The same observation serves as a reply to the second objection that was raised, namely, that the position occupied by the teaching of public health in Faculties of Medicine is almost negligible. In the first place, much might be said with regard to the actual substance of this criticism, which is by no means correct in every case. Apart from that, however, it is desirable that the preventive aspect of medicine should not be inculcated by the Chair of Public Health alone but, as I have already said, that all the Chairs should give it their attention.

It is true that the teaching of public health and preventive medicine calls for a special equipment which can only be fully provided by a special school ; but there is no reason why such a school should not belong to the university, thus benefiting by the influence of the university ideal, and giving the medical students the partial use of apparatus conceived and installed on a large-enough scale for the complete use of students who seek to become specialists in public health.

In brief, one truth emerged from this debate —that it would be a mistake to advocate a rigid system. The relations between schools of public health and universities and public health administrations must vary according to circumstances ; there are only three essential principles, embodied in the absolute rule that the existence of such relations is indispensable. The first principle is that the staff and services both of the university and of the health administration must co-operate with the school of public health. The second is that the governing bodies of schools of public health should include representatives both of the universities and of the health administrations, whatever may be the formal system of establisment and management or the size and development of the schools, this being dependent upon the stage reached in the education of public opinion on the subject of public health. The third principle is that the schools should be permeated by a scientific spirit and yet at the same time preoccupied with its practical applications ; any school which disdained the scientific ideal would lower its standard and gradually decline, and, once cut off from the true source of all educational life, it would soon be discredited and die. In the same way, if a professor in such a school lost the taste and capacity for applying his knowledge and his teaching in practice, his own faith would soon wither.

The enunciation of these principles demonstrates both the complexity and the high intellectual level of the controversies carried on at the Conference ; and it should be of service for the guidance of bodies and individuals concerned with the organisation of schools of public health.

4. Co-operation between Schools of Public Health.

This last problem, which is of essential importance as regards the efficiency of schools of public health, gave rise to most valuable suggestions from Dr. Johann, Director of the Budapest School, and Dr. Chodzko. These suggestions were very carefully considered by the Conference, and most of them were adopted.

It was decided that periodical meetings of directors of schools of public health should be held, but only when some special occasion arose, and not at regular and constant intervals.

Secondly, it was agreed to institute exchanges of staff between schools so far as possible ; these exchanges were to affect assistants rather than professors.

The schools will also exchange publications, and will endeavour to include in their publications summaries, in well-known languages, of the papers published. They will further consider the possibility of publishing in roneoed form a joint report explaining the work and organisation of each school.

The most important of the resolutions adopted, however, concerns joint research into questions of immediate interest. A sub-committee, consisting of MM. Hirszfeld, Pelc, Wacek, Scholtz, Johann, Borcic and Prasek, agreed on the following subjects, which were accepted by the Conference, and will, subject to the theoretical and practical approval of the Health Committee, be investigated by the institutes and schools at Budapest, Prague, Warsaw and Zagreb, and by the other Serb-Croat-Slovene institutes.

(*a*) Preventive specific immunisation against scarlet fever, with special reference to the comparative examination of the various antigens with a view to the adoption of the one that yields the best results ; a committee of specialists (clinicians, epidemiologists, etc.) will be formed to take part in and check the research work.

(*b*) The critical study of the Wassermann reaction already made at Copenhagen will be continued by the schools of public health, which will exchange antigens.

(*c*) An extensive experiment will be made on the value of oral vaccination against typhoid ; this method will be used in specified localities, and the statistics will subsequently be compared.

(*d*) Lastly, it is proposed to hold a competition for the purpose of deciding upon a model latrine and a model well for the rural population, and ascertaining the most practical method of purifying drinking-water in the country. It is certain that the discovery of a satisfactory type of latrine would have a great effect on the progress of rural hygiene. The original research work on this matter will be done in the schools of public health, but it is chiefly for the holding of the competition that the Health Committee's support is needed and is asked for by us on behalf of the Conference.

These are the results of the Conference's discussions. It is not for me to call attention to the importance of the ideas put forward or of the resolutions adopted subject to the Health Committee's approval. All who followed these discussions, however, appreciated their importance and the high level at which they were conducted, and felt that they must have a valuable influence on the minds of those whose mission it is to teach hygiene. As Rapporteur to the Health Committee of the League on questions connected with the teaching of public health, it is my pleasant duty to offer my colleagues on the Committee the hearty thanks of the members of the Conference and an expression of my own gratitude for having given us this valuable opportunity of improving our mutual acquaintance and extending the range of one another's knowledge ; for that is the impression left on our minds of the prolonged discussion and the direct practical observations which are helping us to press forward towards our goal—the advancement of public health by improvement in its teaching.

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**ANNEX 147.**

C.H. 670.

SYSTEM OF LIAISON WITH HEALTH ADMINISTRATIONS (INTERCHANGES).

*Note by the Medical Director on the Programme for* 1928.

Geneva, November 1st, 1927.

[*Translation.*]

1. The interchange in India, which begins on January 1st and the details of which are set forth in the Medical Director's report, will involve an expenditure of more than half the funds at present available for 1928.

2. A credit is to be set aside for liaison with Far Eastern countries, particularly Japan and China, with the Latin-American countries and with other oversea States.

3. *Programme for Europe.* — The Bureaux of the Health Committee and of the Committee of the Office international will consider how the proposal of Dr. Raynaud and Professor Pittaluga regarding the study of methods of deratisation by hydrocyanic acid might be carried into effect.

* * *

For the year 1928, we are faced with the possibility of a new development in the system of interchanges.

For some years now, these methods have been resorted to for the study of problems confronting the Health Committee (physical training) or the health administrations (1926 " new type " of interchange). If the Committee agreed to undertake the study of the big question of rural hygiene, which includes problems of sanitary engineering and the problem of co-operation between medical officers of health, the communal administration, teachers, agricultural schools, etc., we might begin by organising in 1928, on the one hand, a collective study of the problems of sanitary engineering and, on the other, a study of practical rural hygiene. This study would be attended by courses in selected provinces in the Kingdom of the Serbs, Croats and Slovenes.

### 1. Study of Problems of Sanitary Engineering.

We are here concerned not with a collective interchange of sanitary engineers but with a new type of interchange covering the whole province of sanitary engineering.

In the agricultural countries of Eastern Europe (the Kingdom of the Serbs, Croats and Slovenes, Poland, Russia, Hungary, etc.) and even in the agricultural parts of certain countries of Western Europe (France, Holland, Bavaria, etc.), problems of sanitary engineering have not yet found their final solution. In all these countries without exception there are, of course, exceedingly competent sanitary engineers, but what these countries are concerned with is the application and the technical solution of a number of problems relating to the supply of drinking-water, latrines, etc. It would obviously be of great interest to start a collective study by a series of lectures on the most practical solutions which have been found for these questions in various countries with the widest experience, such as Denmark, the United States, Belgium, Germany, England, the Netherlands, etc. ; but more important is a detailed study on the spot of the technical possibilities of practical application, and administrative, financial and even psychological questions connected therewith.

The programme of such a study would have to be prepared by experts in sanitary engineering belonging to three or four of the most experienced countries, who would be invited to direct the study and to prepare the final report for the Committee. Accordingly this study would include :

(*a*) A series of lectures to be given at the first place of meeting ;

(*b*) Study on the lines indicated in Denmark, Belgium, Holland, England, France and Germany ;

(*c*) A detailed study of the various achievements in bonification made in the Kingdom of the Serbs, Croats and Slovenes, Hungary and Poland.

The agricultural countries of Europe would be invited to send about twenty participants, divided into groups, each consisting of from two to four members (sanitary engineers and medical officers of health). Two or three Latin-American countries would likewise participate in this interchange.

The directors chosen for this study could perform the functions of jury in the competition between institutes and schools of hygiene in Central and Eastern Europe, details of which are given in Professor Léon Bernard's report and in the Secretariat's note with regard to the meeting at Zagreb and Budapest.

This collective study tour would differ from the interchanges in the following respects :

(1) It would be directed by a few leaders, who would have prepared the programme ;

(2) It would involve a technical study of certain limited and well-defined subjects ;

(3) It would involve the submission of a general report to the Health Committee, in which the experts would present these problems in the form in which they actually arise in most European agricultural countries.

If necessary, therefore, this report would contain a programme of further studies for the Committee.

### 2. Studies at Zagreb.

Twenty-five medical officers of health, most of them belonging to agricultural countries, would meet at Zagreb to attend a four-weeks course of lectures, given by Dr. Stampar and two of his assistants, on the practice of social medicine in the Kingdom of the Serbs, Croats and Slovenes. These lectures would give a detailed explanation of local conditions and of the methods employed to secure the co-operation of the inhabitants. Lectures would also be given by foreign experts, including : a specialist in sanitary engineering ; an epidemiological statistician, who would deal with the application of the statistical method to health studies and enquiries ; a health expert who is a specialist in health teaching and propaganda ; a medical officer of health who is a specialist in social insurance.

An individual course of two months would be taken in the different health centres of the Kingdom of the Serbs, Croats and Slovenes by groups of not more than two members.

### 3. Study of the Different Existing Methods of Supervising Milk.

A study of the different methods employed for supervising milk would also constitute a new development of our system of liaison and individual missions.

The Health Section would prepare a general report dealing with the methods of supervision employed in the United States and in the principal European countries. Before being offered to the study group, this report would be co-ordinated by the different health administrations.

As the supervision of milk necessitates close collaboration between the health experts responsible for the inspection of foodstuffs, the directors of public institutes for the inspection of foodstuffs and the veterinary surgeons in charge of cowsheds and cows, a small group of a dozen persons representing these different elements would be formed to study all these questions with the help of documents and on the spot. The study would end with the submission of a report to the Health Committee, accompanied by the conclusions reached as the result of inspections, discussions and collective study.

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C. H. 631. (I).

## ANNEX 148.

## REPORT ON THE WORK OF THE CANCER COMMISSION FOR THE YEARS 1923 TO 1927.

*Presented to the Health Committee on behalf of the Commission by Sir George Buchanan (President), November* 1927.

Geneva, November 1st, 1927.

The election of a new Health Committee of the League of Nations has necessitated a revision of the various branches of work undertaken by the Commissions appointed by its predecessor. Accordingly, the Cancer Commission has the honour to present to the Health Committee the following review of the work that has been done under its mandate.

When, more than four years ago, the Health Committee of the League of Nations, taking into account the initiative furnished by the discussions at the Permanent Committee of the Office international d'hygiène publique, decided to enter the field of cancer investigation, the programme adopted was the result of much thought and preliminary discussion in both Committees. We could not be insensible to the appeal which the subject makes to the sympathies of all; most of us in our several official capacities had had to deal with the demands of members of the public, who clamoured for large-scale investigations, on a national or international basis, into the causes of cancer. Most of us in our own countries had been urged to initiate enquiries, usually by the method of questionnaire, into the relation between some habit of life or constitutional tendencies and the incidence of malignant disease. It would have been easy for us to pacify our nationals by supporting the contention that all such proposals should be referred to an international body. But we felt then, and in this at least our experience has fully justified us, that the international bodies which we served must be protected from profitless tasks. While nothing is easier, given adequate funds and clerical assistance, than to prepare and circulate questionnaires or to obtain special reports upon social, economic or physiological factors alleged to have relevance to the ætiology of cancer, nothing is harder than, by these means, to assemble data from which precise scientific conclusions can be drawn. There is, indeed, among the public, and perhaps even within the medical profession, a too general belief that valuable truth can be found by mere questioning. It would be more nearly correct to say that, unless the questioner has already a shrewd notion as to where the truth lies, his questions will elicit nothing to the purpose. When, therefore, the Cancer Commission was set up and its duties and work were specified, it was decided to limit its enquiry to particular issues which, it was hoped, might be elucidated fully. Actually, the Commission has found that even these issues could not be defined with sufficient precision to enable them to reach wholly satisfactory conclusions. As almost always happens, the course of the investigation diverged from the route mapped out; much that we had hoped to gain escaped us, but, in compensation, we have been able to make some not unimportant additions to knowledge which we had not originally contemplated.

In the first instance, the Commission's attention was concentrated upon the wide divergencies between the site-incidence rates of cancer mortality in different countries. Table 1, extracted from a report made in May 1923 to the Office international d'hygiène publique by Sir George Buchanan and Dr. Greenwood, illustrates the position.

TABLEAU I. — TABLE I.

MORTALITÉ PAR CANCER SELON CERTAINES LOCALISATIONS; TAUX POUR 10.000.
MORTALITY PER 10,000 FROM CANCER IN PARTICULAR SITES.

| | Cancer de l'estomac et du foie — Cancer of the stomach and liver | | | | | | Cancer de la cavité buccale — Cancer of the buccal cavity | | | Cancer du sein — Cancer of the breast | | | Cancer des organes génitaux de la femme — Cancer of the female genitalia | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Hommes — Males | | | Femmes — Females | | | Hommes — Males | | | Femmes — Females | | | | | |
| | Angleterre et Pays de Galles — England and Wales | Italie — Italy | Pays-Bas — Nether-lands | Angleterre et Pays de Galles — England and Wales | Italie — Italy | Pays-Bas — Nether-lands | Angleterre et Pays de Galles — England and Wales | Italie — Italy | Pays-Bas — Nether-lands | Angleterre et Pays de Galles — England and Wales | Italie — Italy | Pays-Bas — Nether-lands | Angleterre et Pays de Galles — England and Wales | Italie — Italy | Pays-Bas — Nether-lands |
| 1911 | 3,60 | 3,04 | 7,36 | 3,18 | 2,47 | 5,61 | 1,13 | 0,44 | 0,51 | 1,84 | 0,58 | 0,98 | 2,43 | 1,48 | 1,17 |
| 1912 | 3,70 | 2,95 | 7,12 | 3,18 | 2,37 | 5,72 | 1,15 | 0,41 | 0,53 | 1,97 | 0,55 | 1,19 | 2,46 | 1,40 | 1,27 |
| 1913 | 3,76 | 3,16 | 7,54 | 3,33 | 2,50 | 5,53 | 1,20 | 0,45 | 0,36 | 2,02 | 0,59 | 1,08 | 2,55 | 1,50 | 1,40 |
| 1914 | 3,91 | 3,22 | 7,02 | 3,40 | 2,40 | 5,68 | 1,17 | 0,50 | 0,38 | 1,99 | 0,59 | 1,10 | 2,50 | 1,51 | 1,31 |
| 1915 | 4,27 | — | 7,15 | 3,38 | — | 5,49 | 1,31 | — | 0,41 | 2,02 | — | 1,12 | 2,46 | — | 1,32 |
| 1916 | 4,60 | 3,10 | 7,25 | 3,37 | 2,27 | 5,51 | 1,46 | 0,50 | 0,41 | 2,11 | 0,56 | 1,15 | 2,47 | 1,49 | 1,22 |
| 1917 | 4,93 | 3,10 | 7,23 | 3,23 | 2,37 | 5,55 | 1,61 | 0,53 | 0,32 | 2,13 | 0,56 | 1,10 | 2,56 | 1,40 | 1,30 |
| 1918 | 4,93 | — | 6,98 | 3,24 | — | 5,64 | 1,69 | — | 0,45 | 2,07 | — | 1,12 | 2,54 | — | 1,34 |
| 1919 | 4,22 | — | 6,62 | 3,21 | — | 5,42 | 1,39 | — | 0,41 | 2,20 | — | 1,27 | 2,55 | — | 1,44 |

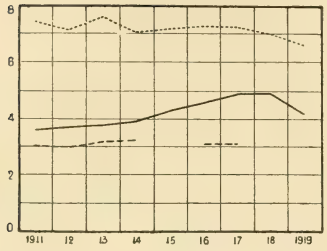
« Les différences internationales dans la mortalité par cancer ». Office international d'hygiène publique.

Extrait du tome XV du *Bulletin Mensuel*, fasc. 6 (juin) de 1923, page 13. — Extract from Vol. XV of the *Monthly Bulletin*, 1923, No. 6 (June), page 13.)

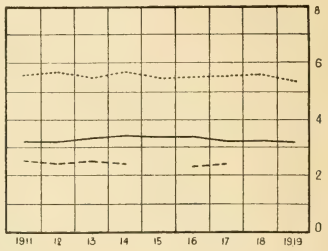
## Mortality by Cancer according to Certain Sites: Rates per 10,000.

Cancer of the Stomach and Liver.

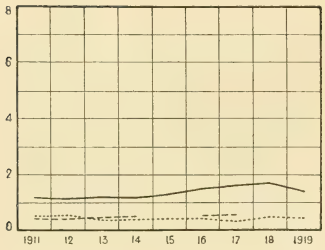
Men.



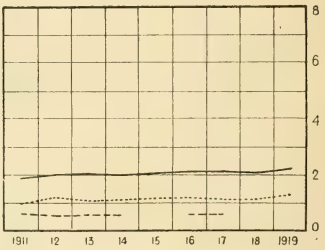

Women.



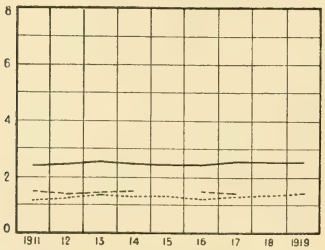

Cancer of the Buccal Cavity.
(men)




Cancer of the Breast.
(women)




Cancer of the Female Genitalia.




*England and Wales.* *Italy.* *Netherlands.*

TABLEAU 2. — TABLE 2.

MORTALITÉ PAR CANCER DU SEIN, SELON L'ÉTAT CIVIL (TAUX POUR 100.000)

MORTALITY FROM CANCER OF THE BREAST, BY CIVIL STATE (PER 100,000).

*Pays-Bas — The Netherlands*, 1913-23

| Age: | 30–34 | 35–39 | 40–44 | 45–49 | 50–54 | 55–59 | 60–64 | 65–69 | 70–74 | 75–79 | 80–84 | 85–89 | 90 & + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Célibataires — Single . . . . . | 3.85 | 8.35 | 22.71 | 52.84 | 66.70 | 59.86 | 76.87 | 74.42 | 94.50 | 109.32 | 189.63 | 103.75 | 228.41 |
| Mariées — Married. . . . . | 3.33 | 8.82 | 18.88 | 30.45 | 33.88 | 40.19 | 39.94 | 40.02 | 48.20 | 49.73 | 86.92 | 109.53 | — |
| Veuves — Widowed . . . . | 1.92 | 5.49 | 14.19 | 26.35 | 38.56 | 39.67 | 39.42 | 41.86 | 49.21 | 60.08 | 81.39 | 73.95 | 138.79 |

*Italie — Italy*, 1919-21

| Age: | 0–19 | 20–29 | 30–39 | 40–44 | 45–49 | 50–54 | 55–59 | 60–64 | 65–69 | 70–74 | 75–79 | 80–84 | 85–89 | 90 & + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Célibataires — Single . . . . . | 0.02 | 0.15 | 2.89 | 10.50 | 24.60 | 36.67 | 43.23 | 50.36 | 48.46 | 63.33 | 95.32 | 63.13 | 100.44 | 37.66 |
| Mariées — Married. . . . . | — | 0.27 | 3.00 | 8.55 | 11.99 | 14.23 | 16.32 | 19.18 | 26.98 | 27.07 | 31.23 | 38.86 | 30.75 | — |
| Veuves — Widowed . . . . | — | — | 6.36 | 12.11 | 11.97 | 16.95 | 16.89 | 22.04 | 24.98 | 29.71 | 46.00 | 38.57 | 44.06 | 33.12 |

*Angleterre et Pays de Galles — England and Wales*, 1911-20.

| Age: | 15–19 | 20–24 | 25–29 | 30–34 | 35–39 | 40–44 | 45–49 | 50–54 | 55–59 | 60–64 | 65–69 | 70–74 | 75 & + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Célibataires — Single . . . . . | 0.02 | 0.09 | 0.6 | 3.7 | 13.3 | 30.7 | 56.4 | 80.5 | 98.8 | 113.5 | 134.5 | 170.9 | 223.5 |
| Mariées — Married. . . . . | — | 0.07 | 0.8 | 4.1 | 12.5 | 25.4 | 41.2 | 52.2 | 63.1 | 70.9 | 78.2 | 98.7 | 134.3 |
| Veuves — Widowed . . . . | — | — | 0.4 | 3.2 | 11.0 | 20.9 | 40.5 | 51.2 | 67.2 | 76.4 | 82.9 | 111.1 | 150.5 |

These divergencies, as shown by the official mortality statistics of the countries selected, seemed sufficiently large to afford ground to believe that their investigation might disclose facts of importance in the ætiology of cancer. The co-operating countries first selected were England and Wales, Italy and Holland; to these Switzerland was later added for special aspects of the enquiry.

The breast and uterus are among the commonest sites of malignant disease in most countries; they are also the sites which admit most readily of the detection of the growth. Hence it was reasonable to assume that the death certification of these forms of cancer would be at least more accurate than with respect to organs less accessible to clinical examination. The Commission decided that, in utilising these data, a comparison would be made possible. A glance at the table on page 2 shows that there are actually great differences between the rates of mortality from cancer of the breast and uterus in England, Italy and Holland.

At an early meeting, and after much deliberation, it was decided to undertake, in regard to these two sites of cancer, two sets of enquiries: (1) *statistical*, based upon the mortality figures for the three countries; and (2) *clinical*, based on special enquiries into the antecedent histories of patients still alive but who were suffering or had suffered from cancer of either of these sites.

Both lines of enquiries have been followed in each country. A vast amount of information has been collected and most of it has already been analysed and reported upon to the Commission, either in full or provisionally. Out of these main enquiries sprang others, reports upon which have been made and presented to the Commission; some of these reports have already been printed. Moreover, the work of the Commission has stimulated other enquiries on these lines in all the co-operating countries, the results of which have been independently published. It is fitting that cognisance should be taken of these researches in dealing with the work of the Commission.

Although the two branches of work — statistical and clinical — have been undertaken separately, the results which were obtained from each have been reported practically at the same time to the Commission and both have been considered in detail by a Committee of Statisticians formed to assist the Commission in technical questions. The data, both clinical and statistical, have thus been made available for all the workers and have been found to be mutually illuminating and to corroborate one another in a striking fashion. For this reason it is difficult and undesirable to separate the results in each line of enquiry. It will be simplest to take the chief facts which have been brought out by joint efforts and to indicate how they were obtained. A brief note on the method of attack employed will be of interest, and is given first.

## The Statistical Side.

The data used have been obtained: (1) partly from mortality statistics which had already been published; (2) partly from figures specially extracted for us from official records and analysed by us with reference to our particular objects; (3) partly by means of a special form of death certification (Italy 1924-25).

In England and Wales the figures used were those for 1911-20 inclusive; in the Netherlands those for 1910-23 and in Italy those for the periods 1919-21 and 1924-25. The latter were secured by the aid of individual bulletins relating to 45,000 deaths from cancer. The deaths from cancer of the two selected sites were taken out in quinquennial age periods from 15 upwards. They have been tabulated by civil state of the women for each age period, and related to the corresponding mean population living at that age period. Further, the mortality rates were ascertained for the different areas of local government administration in the several countries, suitable units being adopted [1].

## The Clinical Side.

A questionnaire [2] was drawn up by the Commission at its first meeting in 1923 to be used for the recording of data as to the antecedent histories of the women in each of the countries who, being still alive and able to give their own history, had suffered or were then suffering from the disease. Similar histories were to be obtained from a corresponding number of women of similar ages who were not suffering and who, so far as could be ascertained, had not suffered, from cancer of any site. These women served as a control to the cancer patients and afforded in fact a sample of the general population for contrast with those suffering from cancer.

As it was reasonably certain that the records kept by the hospitals would not be sufficiently accurate for the purpose of the enquiry, special methods had to be adopted. In Great Britain the data were collected from London and Glasgow. By the courtesy of the various hospitals, the names and addresses were obtained of patients who had been operated upon for cancer of the breast. The patients still living were invited to attend hospital; they were then examined clinically by a

[1] In England and Wales the units taken were the administrative counties and county boroughs; in Holland, the provinces; in Italy, sixteen great administrative departments.

[2] This questionnaire has been published in document C.H.137 (1), pages 5 and 6.

member of the hospital staff, and the antecedent history, according to the questionnaire, was obtained by one of the observers specially employed for this purpose. The control cases were taken almost entirely from among patients attending as out-patients or in the wards for eye or throat troubles, efforts being made to ascertain that they were not suffering from cancer of any form.

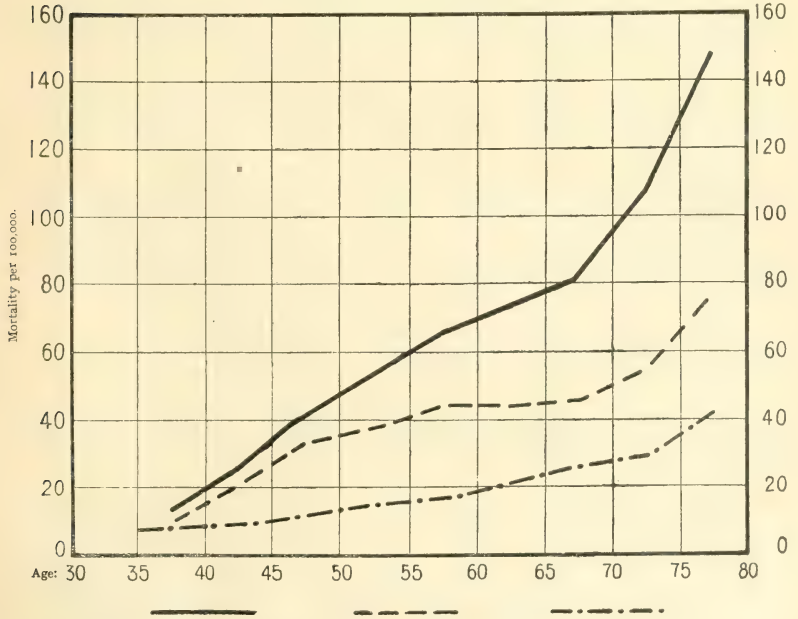
In Holland the questionnaires have been filled in by general practitioners in the course of their daily work. In Italy, members of the staffs of hospitals and clinics have been requested to undertake the work, and have accepted this responsibility.

Certain important facts have emerged from these laborious investigations. Roughly they are similar for all three countries. The data are not only of interest for statistical purposes but establish, on a new and firm basis of observation, facts of much practical importance in relation to clinical diagnosis and treatment, as well as in regard to the associated conditions which favour the development of cancer in the sites in question.

In each country the rate of mortality upon unmarried women is higher than upon married when proper allowance is made for the numbers of women of each civil state living in each age group. By the method of partial correlation applied to administrative units of population, it also appeared that the rate of mortality (age standardised) was negatively correlated with an index of fertility. By the use of the clinical material, it was possible to prove that the fertility of the married women who developed cancer of the breast was significantly less than that of the married women of the control group, when full allowance had been made for age, length of exposure to risk of pregnancy and the possible direct influence of the disease itself. All these results are mutually confirmatory and establish beyond doubt that a fertility below the normal for the particular nation is associated with increased liability to cancer of the breast. Whether the relation signifies a general greater liability to cancer in the case of breasts which have never developed for purposes of lactation or characterises a particular innate physiological type cannot, of course, be determined by statistical analysis alone.

Turning to the relation between age and rate of mortality (see following graph), it has been found that the rate increases with age from the age group 25-29. The increase is at first fairly regular in all three countries up to the age of 55 years. Between this age and

VARIATIONS OF MORTALITY FROM CANCER OF THE BREAST ACCORDING TO AGE IN ENGLAND AND WALES, THE NETHERLANDS AND ITALY.



70 the rate of increase is steeper in England and Wales than in either of the other countries. In Holland, indeed, there is hardly any increase between 60 and 65. After 65 in England and 70 in the other countries the rate of increase is accelerated; at the latest ages there are irregular fluctuations perhaps due to random variations. Having regard to the ascertained average duration of the disease from onset to death, these results indicated that a statement often made in text-books to the effect that 45-55 is the age of maximum incidence is erroneous. It has probably been based merely upon the fact that after this age the number of applicants for hospital treatment decreases.

The Commission carefully studied the question whether such differences between the age mortality curves of the three countries as emerged could be explained by varying frequency of resort to operative treatment. The results of this investigation have been quite decisive.

The clinical data collected do *not* support the view that the age curve has been appreciably affected by operative procedures. It is the experience of all the countries alike that, among those who present themselves for treatment, many are already inoperable, while a high percentage of the others are at so advanced a stage of the disease that even a prolongation of life is not always attained by operation. The Commission's enquiries abundantly confirm the evidence that the results of radical operation at the early stages of the disease are excellent so that about 70 per cent or more are alive and well ten years after operation. But they show with equal certainty that the number of women who apply for treatment in the early stages is small. At the highest it is not more than about 25 per cent, or one in four of all women whose disease is operable. Of those who have already passed the early stage before making application for treatment, only a small proportion are found to be still alive at the end of ten years, roughly about 10 to 15 per cent. In a given series, a slight modification of the mortality rate may be produced which corresponds to the age-periods of maximum application for treatment. But it seems unlikely that in any country such modification can influence the shape of the curve appreciably until a much larger proportion of women present themselves for operation at early stages of the disease.

The clinical data collected, however, render it evident that a very substantial reduction of the mortality rate, at ages at least up to 70 years, could be effected if patients took advantage of the facilities offered. The Commission thinks that this consideration can hardly be over-emphasised. There is no need to wait for further extension of medical knowledge or for further developments of surgical skill, or for greater or easier opportunities of obtaining clinical diagnosis and accommodation in hospitals — important as all these things are. With conditions as they are to-day, much active and useful life that is annually sacrificed by reason of cancer of the breast could already be preserved. The administrative methods most appropriate to secure this reduction in mortality will differ according to the medical and social conditions of the nation or of the particular locality in any country. But the reduction is one which, as a practical matter, can be attained, and the need for attaining it is universal.

Further data derived from the clinical investigations on cancer of the breast have been published for England and Wales. In so far as the corresponding data for Holland have been worked up, they confirm the findings from the English data. Apart from those already mentioned under previous headings, the chief points are:

(*a*) Acute suppurative puerperal mastitis does not show any associations with the development of cancer, since it occurs fully as frequently among women who do not develop cancer.

(*b*) Deformity of the nipple, or abnormality of function of lactation, as also non-suppurative persistent puerperal mastitis, are more frequent among the cancer patients than in the control group.

(*c*) Lactation — unless possibly prolonged for one and a-half to two years — has no association with cancer. There was also a larger number of women among the cancer patients who for one reason or another had never suckled their children.

(*d*) Injury of a severe nature, or often repeated lesser ones, appears also to be associated with the onset of cancer. It is, however, impossible to say how far the breasts of these women may have been the seat of a hyperplasia (chronic mastitis) which itself, rather than the reported injury, has predisposed them to the onset of cancer.

## Cancer of the Uterus.

Cancer of this site as shown in the death certificates offers a mixture, for all countries, of cancer of the cervix and cancer of the corpus. For Holland, cancer of the ovaries is also added. The characteristics of these diseases are dissimilar in some respects, so that the statistics are heterogeneous.

As a whole, the death rates show that unmarried women are relatively little affected by cancer of the cervix, and the disease is almost confined to women who have been pregnant. It is known that cancer of the body of the uterus is relatively more common among single women, and it is probable that the data for single women relate very largely to disease of this part of the organ alone. Cancer of the corpus is, however, much less frequent than is cancer of the cervix, and in the data for married women the vast majority of the cases — almost certainly not less than 80 per cent and probably more — will be cancer of the cervix.

Although cancer of the cervix is mainly a disease of women who have borne children, the work of the Commission has confirmed the conclusions of Peller and Deelman that it is the fact of a pregnancy and not the number of pregnancies which is the predisposing factor in the production of cancer of the uterus. Peller, indeed, regards several pregnancies as less likely to be followed by cancer than is a single pregnancy. More recent data obtained for a clinical investigation in England suggest that a pregnancy which is terminated before the fœtus is viable may be more closely associated with a subsequent cancer than one extended to a viable age. [1]

In the case of cancer of the breast, the Commission, as just said, put to itself the question whether the country showing the least mortality owed its position to a greater and speedier use of medical and surgical facilities than exist in the other countries, and answered that question in the negative. In the case of cancer of the cervix, it has similarly enquired whether the country with low mortality is one in which, as a whole, women go through labour, and particularly their first confinement, with less injury and laceration of the cervix, or less resulting chronic inflammation of the cervix, than in the countries with higher mortality. In this instance, however, no answer, positive or negative, can be given with the data at our disposal. The Commission can only lay stress upon the importance of the evidence that in general experience the occurrence of cancer of the cervix is associated with conditions which are, at least in some measure, preventable by efficient management of labour — particularly in primiparae. It may well be that in all countries a consideration of current obstetrical methods from this point of view would constitute an important step towards the prevention of uterine cancer.

The mortality rate for cancer of this site, as of the breast, increases with age, but in this case the rate of increase slackens after 60. Neither for cancer of the uterus any more than for cancer of the breast is the amount of effective and life-prolonging treatment applied among the population as a whole sufficient to affect the main characteristics of the mortality curves in age-periods. The same remarks applicable to cancer of the breast with respect to interpretation are here valid, subject to the following variations: (1) the peak age for applicants for hospital treatment is from five to ten years lower; and (2) the number of patients who are already inoperable when application is made is usually about 50 per cent of all patients. Excellent results are obtained here also in early cases, but the number of such cases appears to be an even smaller proportion of the whole than the already deplorable figure for cancer of the breast.

For several purposes of the Commission's enquiry, not least for assessing the results of effective treatment, it has been important to consider the " natural duration ", *i.e.*, the mean duration of the disease from the alleged date at which the first symptoms were noticed by the patient till death from the disease. This has been shown by Greenwood for English cases to be just over three years for cancer of the breast and twenty-one months for cancer of the uterus (cervix). These figures correspond almost exactly to similar data given for smaller numbers of women in several German papers found in surgical literature. It indicates that the disease runs a generally similar course in England and Germany. The Italian investigations, as recorded in a provisional report to the Cancer Commission, suggest that cancer of both sites may run a more rapid course in that country.[2]

## Regional and Racial Divergencies.

The above investigations, while they brought out many points of similarity and a few of dissimilarity between the countries participating in the enquiry, have not enabled the Commission to pick out any one set of predisposing conditions associated with cancer of the breast or with cancer of the uterus and to affirm that it is to the presence or absence of such-and-such conditions that the differences in the national mortalities are essentially due. As the enquiry proceeded it became evident not only that countries with well-established systems of registration and tabulation of causes of death show notable differences *inter se* in respect of site-incidence rates, and also in respect of total mortality from all forms of cancer, but also that, within any given country, similar and sometimes considerable divergencies in mortality are to be found (after due correction for sex and

[1] In Italy, an inverse correlation was noted between natality and mortality in the case of cancer of the uterus as well as cancer of the breast.

[2] In Italy, figures for median duration of all cancer cases (whether subject to operation or not) are: men, 8.88 months; cancer of the breast (women), 20.5 months; cancer of uterus, 11.8; cancer of other sites (women), 9.48. Total cancer of all sites (women), 10.6.

age) between its constituent administrative areas. This has been strikingly illustrated by a detailed study of cancer mortality in the different cantons of Switzerland [1]. In respect of Italy, it was specially brought to the notice of the Commission by the Italian workers at an early period of our enquiry, and it has also received close attention from the Dutch and English investigators.

In face of the Italian figures in particular, the Commission had to consider the possibility, at least, that "racial" influences underlie and furnish the explanation of these differences; influences, that is to say, inherent in race *quâ* race, and resulting in a greater or less liability to any cancer on account of the constitutional elements which determine racial characteristics. Moreover, investigations made in the United States from the racial aspect offered some support for the opinion that the mortality from cancer varied with the race of the immigrants, or at least with their country of origin.

In order to test how far the divergencies found by the investigators for the Cancer Commission could be attributed to race, a most laborious research was undertaken at the request of the Commission by Professors Pittard and Niceforo, both members of the Sub-Committee of Statisticians, who prepared an exhaustive monograph of great scientific value. This very thorough study related to the regional distribution of cancer, in terms of mortality statistics, in different regions of Europe, contrasted with anthropological characteristics and measurements in those regions. The Commission, in accord with the authors, does not consider that its results authorise any definite conclusions upon the specific issues raised. With respect to the latter topic, Professors Niceforo and Pittard pointed out that in hardly any country were precise measurements of adequate samples of the population in different regions showing very different rates of mortality available for their analysis and that too often racial characters were confused by medical writers with national differences. With regard to the former topic, it seemed that there was ground for calling in question the accuracy of the death certification in most, if not all, of the countries.

## Accuracy of Certification.

The staff of the Health Organisation of the League accordingly undertook the collection and scrutiny of data as to the causes of death as shown on the death certificates for all European and some extra-European countries. An exhaustive compilation of the death rates from certain causes other than cancer has been prepared. Perhaps the most instructive consideration to be derived from this document is the extent to which the mortality from " senility " or from " unknown " causes varies in the different countries. It is reasonably certain that there is some degree of overlapping between the death rates from cancer and under these other headings, and that the effect of the overlap will be artificially to enhance or diminish the recorded cancer mortality in some particular countries, or in some particular regions of the same country, more than in others.

Attempts have been made by members of the Sub-Committee of Statisticians to assess the degree to which this overlapping might occur and its possible effect on the cancer statistics. But no exact estimation could be reached. It has been proved that substantial inaccuracies are present, the extent of which varies for the different countries.

Errors in death certification of cancer are almost certainly both positive and negative, that is, many cases are certified as cancer which are not so, and *vice versa*. Further, it is reasonably certain that there are errors in the certification of the primary site, the site of the metastasis which finally causes death being frequently declared and recorded as if it had been the primary site.

So far as can be ascertained from published data, the divergence between clinical diagnosis and the result of pathological examination is not less than 20 per cent. The Dutch members of the Committee have obtained data by personal enquiry among the practitioners of a given locality which — assuming that all deaths certified as cancer are correctly certified — shows that 10 per cent should be added to the total deaths from cancer.

In England and Wales it has been ascertained that, among women known to have been operated upon for cancer of the breast or for cancer of the uterus and certified to have died of cancer, there is considerable error in the allocation of the primary site. This error amounts to not less than 10 per cent for cancer of the breast, and is in the neighbourhood of 15 per cent for cancer of the uterus. A considerable part of this error arises because the patient is not aware

[1] Dr. Carrière, *Monthly Bulletin* of the Office international d'hygiène publique, 1924, No. 10.

that she has been operated upon for cancer and the practitioner who signs the death certificate may not be justified in assuming that a removal of the breast or a hysterectomy performed perhaps many years previously had in fact been done for cancer. The Commission considers that such errors as these, although considerable, are not such as to invalidate the general conclusions arrived at with the aid of mortality statistics which have been set out in the previous pages.

## Concluding Observations.

1. Upon the positive side, the Commission may fairly claim to have placed upon an adequate basis of statistical and clinical evidence the relation between fertility and cancer of the breast and to have elucidated other points in its ætiology. Similarly, the relation between parturition and cancer of the cervix uteri has been shown to be that postulated by Deelman and Peller. Again, numerical measures of the frequency of resort to operation prove that the frequency is deplorably low and proof that early operation is a far more successful measure than the general body of the profession supposed to have been furnished. These are all solid contributions to medical knowledge.

2. The bearing of some of these results on practical work has received much attention in the countries of enquiry, and their lessons appear to apply generally. In regard to cancer of the breast, it is urgent to determine whether the present failure to take advantage of the aid offered by modern surgery is due to individual carelessness, ignorance, or prejudice which can be removed; to what extent it can be also attributed to the insufficient realisation by general medical practitioners of their responsibilities or of the magnitude of the security which modern surgery can give; or how far, again, it may be due to inadequate provision of facilities for medical diagnosis and surgical treatment. In regard to cancer of the uterus, and including radiological with operative treatment, there is the same urgency for enquiry and for remedy. In this condition also, the results of the Commission's enquiries illustrate from a new angle the importance of obstetric methods which, to the maximum practical extent, will prevent the occurrence or persistence of the injury and chronic inflammation of the cervix uteri which are known, in some instances, to be followed by a cancer.

3. Throughout its work the Commission has been dependent, in great measure, upon the action taken in the countries of enquiry to bring together clinicians, surgeons, health administrators and statisticians for consultation and mutual assistance. This combined action has been found invaluable for the satisfactory determination of the methods of enquiry (*e.g.*, the selection of series of cases and their after-histories), the collection of appropriate data, and the scientific assessment of the results obtained. This co-operation has in some cases been central, and related to the country as a whole, sometimes local in connection with a particular communal area or a particular hospital. The way in which it can best be achieved or assisted by the public health service of a particular country naturally is a matter for that country and not for any international recommendation. But the Commission considers that one of the most fruitful results of its work has been to obtain a demonstration of the utility of this national or local expert co-operation for purposes of research into or reduction of the mortality from cancer. In its opinion, the organisation of group study of this kind might with advantage be undertaken or extended in many countries, and applied to all varieties and sites of cancer.

4. That part of the Commission's enquiry which concerned the relation between cancer and known anthropological characteristics has been carefully pursued, but its results have been quite inconclusive. The investigation has had value nevertheless by bringing together and making available a large number of scattered facts as to cancer mortality and relating them to organised anthropological science, and by showing how much must yet be done before attempts to appraise "racial" element in the prevalence of disease can be successfully undertaken.

5. The observations made, on page 8 of this report, in regard to the unsatisfactory certification of causes of death, and in particular to the importance of all deaths from cancer being certified and recorded according to the primary site of the disease, whenever ascertainable, are the result of experience which, in greater or less degree, is common to all the countries of enquiry. There is urgent need for investigations, in all countries possessing an organised official service of statistics of causes of death, to determine more exactly the degree to which certification by causes is unsatisfactory and how its scientific value may be improved.

* * *

The question whether the Commission should pursue further investigations of its own, on its present or on a new reference, or whether enough has now been done to stimulate national and individual investigators to continue work on the lines above illustrated, lies outside the scope of this report. The present communication will have served its purpose if it enables members of the Health Committee and of the Permanent Committee of the Office international d'hygiène publique to obtain a convenient general view of what has been done by the present Commission and its collaborators on the subjects referred to it. In so doing, the Commission desires to express its deep obligation and gratitude to the various experts, statistical, clinical and other, from the different countries, who have laboured with so much devotion and in so much detail to obtain the facts on which this report is based and to guide it in drawing conclusions. The Commission also desires to place on record its high appreciation of the untiring services of its Secretary, Dr. E. Tománek, and of his colleagues, members of the Health Section of the Secretariat of the League of Nations, whose zealous assistance has rendered possible the completion of a laborious and important undertaking.

A bibliography of the printed and circulated documents prepared for or at the instance of the Commission is annexed. The vast statistical documentation prepared for the Commission and its critical discussion afforded an *apparatus criticus* which will be indispensable to future workers in this field, and we recommend that it be duly classified and held at their disposition in the Health Section of the Secretariat of the League of Nations at Geneva.

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*Members of the Cancer Commission :*

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| Sir George Buchanan, C.B., M.D. (*Chairman*), | Senior Medical Officer of the Ministry of Health, London. |
| Professor Léon Bernard, | Professor of Hygiene at the Faculty of Medicine of the University of Paris. |
| Dr. H. Carrière, | Director of the Federal Public Health Service, Berne. |
| Dr. N. M. Josephus Jitta, | President of the Health Council of the Netherlands, The Hague. |
| Dr. Alberto Lutrario, | Former Director-General of the Health Department at the Ministry of the Interior, Rome. |

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| Professor M. Greenwood (*Chairman*), | Medical Officer (Medical Statistics), Ministry of Health, Professor of Epidemiology and Vital Statistics, London School of Hygiene, University of London. |
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| Professor Eugène Pittard, | Professor of Anthropology, University of Geneva. |
| Professor Gustave Roussy, | Professor of Pathological Anatomy at the Faculty of Medicine of the University of Paris. |

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*Experts who have presented reports to the Commission include :*

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| Professor Ant. Dionisi, | Director of the Anatomical Pathological Institute, Royal University, Rome. |
| Professor Fichera, | Professor of Surgical Pathology, University of Pavia. |
| Dr. G. Giardina, | Inspector-General of Public Health, Rome. |
| Senator E. Pestalozza, | Director of the Obstetrical and Gynæcological Clinic, University of Rome. |

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## Appendix.

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**ANNEX 149.**

C.H. 674.

WORK OF THE OPIUM COMMISSION.

NOTE BY DR. CARRIÈRE ON THE APPLICATION OF ARTICLE 10 OF THE INTERNATIONAL OPIUM CONVENTION OF FEBRUARY 19TH, 1925.

Geneva, November 2nd, 1927.

An admirable survey of the question which forms the subject of the present note is given in the memorandum prepared by the Health Section (document C.H. 612). I shall confine myself now to recalling very briefly the various stages through which the question has passed.

The point at issue, it will be remembered, was to determine whether two derivatives of opium, eucodal and dicodide, should come under the International Opium Convention of February 19th, 1925. This question was raised in pursuance of a resolution of the Council of the League requesting the Health Committee to consider whether it was desirable to pass a preliminary recommendation, in accordance with Article 10 of the Convention, as to the necessity of including under the provisions of the Convention drugs other than those specifically mentioned in it.

The Health Committee, in accordance with this resolution, requested its expert, Professor Knaffl-Lenz, to examine the question, and in his report Professor Knaffl-Lenz arrived at the conclusion that there existed at present only two new opium derivatives which might give rise to the drug habit, namely, eucodal and dicodide, the first being a dihydro-oxycodeinon-hydrochlorate and the second a hydrocodeinon. As Professor Knaffl-Lenz's report (document C.H. 308) is reproduced *in extenso* in the statement prepared by the Health Section, it seems unnecessary to dwell here on the conclusions of the author, namely, that both these products may lead to abuse in the same way as morphine, and that they should consequently be made subject to the same restrictions.

This report was submitted by the author to the Opium Sub-Committee of the Health Committee, which in turn submitted it (document C.H. 314) for approval to the Committee. The latter accepted it and decided, in accordance with the provisions of Article 10 of the Geneva Convention, to ask the Permanent Committee of the Office international d'hygiène publique for advice and a report, as provided in the same article.

The Office, when called upon to deal with the question, decided, on my report, to refer it for examination to a Committee of Experts, consisting of Sir William Wilcox, M. Perrot, Professor Knaffl-Lenz and M. Pottevin. The Committee of Experts met in Paris on April 15th, 16th and 17th, 1926, and adopted a report by Professor Knaffl-Lenz (reproduced *in extenso* in the experts' report), arriving, I need hardly say, at the same conclusions as those mentioned above, namely, that eucodal and dicodide are drugs which may give rise to abuses similar to those produced by the substances mentioned in Article 4 of the Geneva Convention and that they should consequently come under the provisions of that Convention.

These conclusions were unanimously adopted by the Committee of the Office international on May 6th, 1926, and were forwarded by the Office to the Health Committee, which will now have to take a definite decision on them, with a view to informing the Council of the League whether in its opinion the provisions of the Geneva Convention should be applied to eucodal and dicodide.

The various reports which I have mentioned in the course of this brief summary show clearly the reasons for answering this question in the affirmative, and it seems to me superfluous to dwell at any length on this point. I need only mention that there is now evidence to show that dicodide and, to an even greater extent, eucodal are real drugs, the abuse of which may lead to the drug habit ; further, that such abuse has been proved, that addicts employ these drugs as they do morphine, heroin and cocaine, and that it is only logical, therefore, that the products in question should be made subject to the same restrictions. Having consulted the members of the former Opium Sub-Committee, I propose that the Health Committee should accept the preliminary opinion of the Office international d'hygiène and should so inform the Council of the League, as provided in Article 10 of the Geneva Convention.

Having disposed of this matter, I desire to mention two other points which come within the same category and which, in my view, call for a solution similar to that which I have proposed for eucodal and dicodide.

The first point concerns a product called dilaudide, which is to morphine what dicodide is to codeine, and possesses, but in a very much more pronounced degree, owing to the peculiarities of its chemical constitution, the narcotic properties of morphine. As regards this drug, therefore, it would be well to employ the procedure laid down in Article 10 of the Geneva Convention and to enquire of the Office international d'hygiène whether it considers that dilaudide should be made subject to the provisions of the Convention.

The second point that I have to mention is a most important one. Ever since the introduction of restrictions under the Opium Conventions, and more particularly the Geneva Convention, as regards the traffic in and use of morphine, there has been a considerable increase in the manufacture of benzoylmorphine, a derivative of morphine. The chemical constitution of benzoylmorphine is such that it is easy by means of very simple treatment, such as heating in conjunction with an alkali, to recover the morphine which it contains. It is obvious why the manufacture of benzoylmorphine has suddenly increased to such an extent, for it is really a camouflage of morphine, which makes it possible to distribute that drug commercially without

any risk of prosecution and to recover it when the right moment occurs. This fact, however, is not sufficient to bring benzoylmorphine within the action of the Convention, despite the obvious reasons for its manufacture, for Article 10 does not cover the camouflaging or possibility of recovering morphine : it applies only to products which may cause ill effects similar to those of the substances specifically mentioned in the Convention. Experience and clinical practice afford adequate proof that benzoylmorphine also possesses the narcotic properties of morphine and may consequently lead to abuse and the formation of the drug habit. This, however, is not all. Benzoylmorphine belongs to the group of morphine esters produced by the combination of morphine with an acid, such as benzoic acid, acetic acid (which gives monoacetylmorphine and diacetylmorphine or heroin), propionic acid, isobutylic acid, valeric acid and others. The constitution of these esters is such—here I would refer you to Professor Knaffl-Lenz's reports which you have before you and which set forth the matter quite plainly and clearly—that their narcotic properties must be regarded as equal to those of morphine and heroin. In point of fact, experiment and observation have already proved this in the case of certain esters, namely, those of the five acids mentioned above, and among them are some whose action is much more pronounced than that of morphine and approximates more nearly to that of heroin. The question arises, therefore, as to whether these morphine esters should not be made subject to the provisions of the Convention. In my view, the question should in any case be submitted, like that of eucodal and dicodide, to the Office international d'hygiène, and the Office should be asked to give an opinion on the following point : Is there reason to regard morphine esters as productive of ill effects similar to those of morphine and to apply the provisions of the Convention to this group of products ?

I may add that these various products do not appear to be absolutely essential for therapeutic purposes, and this would lessen the drawbacks which might result from the introduction of restrictions in regard to their use.

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C.H. 654.

**ANNEX 149a.**

## WORK OF THE OPIUM COMMISSION.

### Application of Article 10 of the Opium Convention of February 19th, 1925 (Eucodal and Dicodide).

*Report by Professor Knaffl-Lenz.*

[*Translation.*]

The Opium Convention lays down in Article 10 that certain substances to which the Convention does not yet apply but which are liable to similar abuse and productive of similar ill effects as the substances mentioned therein shall be submitted to the provisions of the Convention if the Health Committee of the League of Nations and the Permanent Committee of the Office international d'hygiène publique at Paris so recommend.

Basing their action on two reports by Professor Knaffl-Lenz and on the report of a Committee of Experts set up for this purpose by the Office international d'hygiène publique at Paris, the above-mentioned two Committees unanimously decided that the provisions of the Convention should apply to two derivatives of codeinon, eucodal (dihydro-oxycodeinon) and dicodide (dihydrocodeinon), since the qualitative action of these two substances is the same as that of morphine and only their quantitative action is different.

In a statement, however, to the Advisory Committee on Traffic in Opium, Professor Anselmino pointed out that these two substances are derivatives of thebain, an alkaloid which is found in small quantities in opium, and not of morphine, that it is impossible to manufacture eucodal and dicodide from morphine as a basis and that accordingly the provisions of the Convention cannot be applied to them.

This view is not correct.

In the first place, it is incorrect to say that derivatives of codeinon cannot be extracted from morphine, since they can be manufactured from codeine, which is itself a product of morphine.

As the action of these two alkaloids is almost identical with that of morphine, they must be included from the pharmacological point of view among derivatives of morphine, irrespective of whether it is more practical from the technical point of view to manufacture them from monometylmorphine (codeine) or from dimetylmorphine (thebain).

Since the Convention only mentions narcotics productive of similar ill effects and liable to similar abuse as the narcotics specified, an interpretation according to which the Convention can only be applied to derivatives of morphine is incorrect.

Moreover, the position has altered since then, as manufacturers have undertaken to withdraw dicodide and eucodal in their pure form from the market, in order that they shall not fall under the provisions of the Convention.

The firm of Knoll, at Ludwigshafen, which manufactures dicodide, has undertaken to sell it in future solely in the form of tablets of insoluble bitartrate containing only the therapeutic dose and useless for the preparation of solutions for injections. The firm of Merck, at Darmstadt, delivers eucodal in tablet form and in phials.

These measures certainly make the suppression of illicit trade in these two products much more effective than all the provisions of the Convention. On the other hand, experience has shown that the sale in therapeutic doses does not in itself suffice to prevent the abuse of these narcotics and its disastrous results.

Doctors claimed that they were no longer in a position to prescribe these two products in small quantities in combination with other medicaments if the factory did not deliver them in substance. They were therefore obliged to prescribe them in the doses made up by the factories, and accordingly patients often received a quantity which was much larger than was desirable from the therapeutic point of view. The danger of becoming accustomed to the drug was therefore considerable, especially in the case of susceptible persons. These disadvantages could only be avoided by selling these medicaments in very small packets, which would certainly involve a considerable increase in price.

Further, doctors would not be able to prescribe compounds of these two medicaments.

From the purely medical point of view, it does not seem practicable not to furnish pharmacies with these two alkaloids in substance.

Accordingly, at the request of the doctors, the firm of Merck recently withdrew its offer not to sell eucodal in substance.

As regards the danger attaching to these two products, medical reports show that dicodide does not give rise to the drug habit as easily as does morphine, while eucodal causes a greater feeling of well-being than morphine and is therefore more dangerous than the latter. The most prominent drug experts in Germany, Joel and Fränkel, report that eucodal is mainly sought by persons formerly addicted to the cocaine habit, on account of its stimulating action, and that drug-takers frequently change from morphine to eucodal.

These two experts are of opinion that the provisions of the Convention should be applied to eucodal and dicodide and to all narcotics which have the same action as morphine. The Opium Convention would lose its meaning if it could not be applied to all narcotics the effects of which are similar to those of morphine.

P. Wolff, of Berlin, who has also exhaustively studied the question of the drug habit, is of the same opinion.

For the rest, an undertaking, even if entered upon by a Government, not to trade further in the said alkaloids in substance could only ensure the achievement of the end in view if it were agreed to not only by the country in which these medicaments are at present manufactured but also by all other countries in which they might be manufactured in future.

It must not be forgotten that this is an important question of principle. If an undertaking prohibiting the future sale in substance of narcotics the action of which is similar to that of the substances mentioned in the Convention were to suffice for the said narcotics to be exempted from the provisions of the Convention, there would be no reason why morphine, heroin or all the other drugs mentioned in the Convention should not also be exempt, and in this case the latter would no longer be applicable to anything except opium and coca leaves.

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**ANNEX 149b.**

C.H. 671.

## WORK OF THE OPIUM COMMISSION.

### Application of Article 10 of the International Opium Convention of February 19th, 1925 (Benzoylmorphine and other Morphine Esters).

*Report by Professor Knaffl-Lenz.*

I.

The provisions of the Opium Convention of February 19th, 1925, apply, as stated in Article 4 of the Convention, to the following substances :

(*a*) Medicinal opium ;
(*b*) Crude cocaine and ecgonine ;
(*c*) Morphine, diacetylmorphine, cocaine and their respective salts ;
(*d*) All preparations, officinal and non-officinal (including the so-called anti-opium remedies), containing more than 0.2 per cent of morphine or more than 0.1 per cent of cocaine ;
(*e*) All preparations containing diacetylmorphine ;
(*f*) Galenical preparations (extract and tincture) of Indian hemp ;
(*g*) Any other narcotic drug to which the present Convention may be applied in accordance with Article 10.

There is therefore in the Convention a difference between the treatment accorded to morphine and the treatment accorded to cocaine. In the matter of cocaine, the Convention applies not only to that substance and to its salts but also to ecgonine and all the derivatives of ecgonine which might serve industrially for its recovery. Apart from Article 10, however, no provision of the Convention applies to the derivatives of morphine, except diacetylmorphine. Consequently, the provisions of the Convention cannot be applied to narcotics other than those mentioned in Article 4 until the authorities mentioned in Article 10 have taken a decision to that effect. The procedure being rather complicated, at least two years must elapse before these formalities can be complied with, as has been seen in the case of eucodal and dicodide.

The question is of great importance at the present time : large quantities of a derivative of morphine, benzoylmorphine, have recently been placed on sale, and it has been impossible to apply to them the supervisory measures for narcotics referred to in Article 4 of the Convention.

The facts that it is easy to recover morphine from benzoylmorphine by warming the latter with a solution of potassium carbonate and that benzoylmorphine is not used for therapeutical purposes awake a suspicion that this product is only manufactured in order to evade the provisions of the Convention.

The Convention itself provides no means of suppressing this deplorable practice until it has been proved, in conformity with the provisions of Article 10, that benzoylmorphine possesses the same harmful properties as do the narcotics mentioned in the Convention.

It is not difficult to prove that the action of benzoylmorphine is analogous to that of morphine.

Experiments carried out on various animals by Stockmann and Dott in 1890 have shown :

(1) That monoacetylmorphine possesses an action practically the same as that of morphine ;

(2) That the narcotic and exciting effects of morphine are produced to an even greater degree by diacetylmorphine.

At the same time, the above-mentioned authors studied the action of monobenzoylmorphine and observed, in the course of experiments conducted on frogs, rabbits and dogs, that its effects did not differ from those of monoacetylmorphine ; these results were confirmed by Mering in 1898.

My own experiments, conducted on mice, have given practically identical results ; but the above authors merely studied monobenzoylmorphine, whereas I have also studied dibenzoylmorphine.

The conclusions to be drawn from all these experiments are the following :

1. The effects of the esters *with only one acid radical substituted in the morphine molecule* are practically the same as those produced by morphine ; it would seem, however, that the exciting effect is slightly less pronounced, whereas the hypnotic action is much greater.

2. The effects of esters *with two acid radicals substituted in the morphine molecule*—as, for instance, heroin—are much more marked in these two respects. The action of dibenzoylmorphine is much nearer to that of heroin than to that of morphine.

Clinical observations made in the University clinics of Vienna and Graz have confirmed, as might be expected, the results of experiments conducted on laboratory animals : *the action of dibenzoylmorphine is qualitatively the same as that of morphine but with a highly accentuated narcotic and euphoric power.* Administered per mouth, dibenzoylmorphine has a weaker action than the same dose of morphine. This weaker action is explained by the fact that dibenzoylmorphine, after having been saponified in the intestines, is absorbed as morphine, of which dibenzoylmorphine contains not more than 58 per cent.

Administered subcutaneously, however, its action—particularly its euphoric action—is stronger than that of morphine, which explains the preference accorded to it by patients.

Observations made in the case of morphine addicts, of which one was accustomed to take 1 gr. of morphine a day, the other taking 0.7 gr., have shown that doses of 0.02 gr. of dibenzoylmorphine suppressed the symptoms of withdrawal within a period of twenty minutes after injection.

As all derivatives which possess the power of suppressing withdrawal symptoms involve, as a consequence of their use, habit formation and its unfortunate consequence, it is clear that benzoylmorphine possesses not only the therapeutical but also the harmful properties of morphine.

I therefore consider that the observations of Stockmann and Dott (1890), those of Mering (1898) and my own observations based both on laboratory and clinical experiments prove that we should be fully justified in applying to benzoylmorphine the provisions of the Opium Convention.

II.

The question which then arises is whether it will be desirable to make the Convention apply not only to benzoylmorphine but also to a whole group of derivatives of morphine which, according to the results of research that have already been published (and as might indeed have been foreseen theoretically), possess all the properties of morphine.

To explain the theoretical basis of our statement, let us consider for a moment the molecular structure of morphine.

Morphine possesses two hydroxyl groups which are responsible for its narcotic action. One, the phenelic group, is easily oxidised, the result of this oxidation being to cause the toxic properties of morphine to disappear; such oxidation takes place easily in the organism, and this faculty on the part of the organism to transform morphine into a substance which has become harmless through oxidation increases progressively in the case of morphine addicts, so that the latter are forced gradually to increase their doses to obtain an equal euphoric effect.

The etherification of this hydroxyl group by means of alcohol, or its esterification by means of an acid, may prevent oxidation to a certain extent. Whereas the combination with an alcohol (etherification) is so stable that it cannot be broken up in the organism, the combination with an acid (esterification)—such as is found, for instance, in the case of diacetylmorphine—is easily broken up by saponification, and the morphine is freed. This explains the fact that codeine, which is the methyl ether of morphine, does not possess the narcotic and harmful properties of morphine, and cannot be transformed into morphine in the organism.

Experiments conducted with a whole series of derivatives of morphine of the same type have shown that these derivatives possess properties similar to those of codeine, that is to say, they are not habit-forming, as morphine is.

On the other hand, the esters of morphine, which are a combination of the hydroxyl group with an acid, produce a twofold action : to the action of the ester itself is added that of the freed morphine.

It will easily be understood that the oxidation of the phenolic hydroxyl group is in the case of esters considerably retarded and that consequently a smaller quantity produces the same effect.

The esters of morphine may therefore be regarded as narcotics which are quite as dangerous as morphine itself, and the Convention should be made to apply not only to diacetylmorphine and to benzoylmorphine but to all the other esters of morphine [1]. If we merely make the Convention apply to benzoylmorphine, it is certain that the subterfuge reported above will shortly be resorted to once again—for instance, by means of monoacetylmorphine, to which the provisions of the Convention as it is at present worded do not apply.

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**ANNEX 150.**

C.H. 673.

## WORK OF THE FAR EAST COMMISSION.

*Report by Dr. Jitta, Chairman of the Commission.*

Geneva, November 2nd, 1927.

In accordance with the desire expressed by the Health Committee, the Far East Commission has considered the representations made by certain administrations concerning the draft Rules of Procedure of the Advisory Council of the Bureau at Singapore. Most of the suggested modifications concern matters of administrative detail, which will come for preliminary consideration before the Advisory Council during its forthcoming meeting in Delhi in December next.

Sympathetic consideration was given to the request formulated by the Japanese Government that there should be two Japanese representatives on the Advisory Council, the second representing Japanese administrations and colonies in the Far East.

The Commission does not propose that the Health Committee should adopt a resolution regarding this matter, but it would be glad if the President of the Health Committee would explain to the Advisory Council, the next session of which he will attend, the special circumstances of Japan which have led the Health Committee to view the proposal with sympathy.

With regard to the relationship of the Advisory Council to the Health Committee, special consideration was given to the representations made by Dr. Otten, on behalf of the administrations of the Netherlands East Indies, relating to the amount of autonomy which the Advisory Council should enjoy. The facts that certain Eastern Administrations contribute generously to the finances of the Eastern Bureau and that the Advisory Council performs functions, including the drawing-up of the annual budget of the Bureau, not performed by Commissions of

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[1] Mering also examined monoacetylmorphine, monoproprionylmorphine and monobenzoylmorphine, and found their narcotic action to be stronger than that of morphine.

The same author, as well as Stockmann and Dott, examined diacetylmorphine, diproprionylmorphine, diisobutyryl-morphine and divalerylmorphine and found their narcotic as well as their tetanic action stronger than that of morphine (see FRÆNKEL, *Arzeneimittelsynthese*, 5th edition, page 397).

the Health Committee, places the Advisory Council on a different footing to that of the Commissions *vis-à-vis* the Health Committee. The Far East Commission proposes the following resolution for adoption by the Health Committee :

" The Health Committee has taken note of the representations made by certain administrations concerning the draft Rules of Procedure for the Advisory Council of the Eastern Bureau which will be considered at the forthcoming meeting of the Council. The Advisory Council being an integral part of the Health Organisation, its resolutions and recommendations will in all cases be referred to the Health Committee for consideration and approval, but, in view of its special constitution, it should enjoy a greater degree of autonomy than that conferred upon the Commissions of the Health Committee (under Article 10 of the Rules of Procedure of the Health Committee)."

### Proposal for a Survey of Health Conditions in the Pacific.

The Far East Commission also considered a proposal emanating from the International Pacific Health Conference, held in Melbourne in December 1926, regarding a survey of health conditions in the Pacific Islands.

Having listened to an exposé by Dr. Park relating to the objects of the proposed enquiry, supplementing the information contained in Dr. Norman White's note (Annex 152*a*), the Commission decided that such an enquiry is not only desirable from a scientific point of view but that it has an international interest and importance. It therefore proposes the following resolution :

" The Health Committee :

" Having studied, in accordance with the resolutions adopted by the Eighth Assembly, the proposal contained in Resolution 22 adopted by the International Pacific Health Conference in December 1926, relating to the study of health problems in the Pacific area,

" Considers that a survey of the health conditions in Papua, New Guinea, the New Hebrides, New Caledonia, the Solomon Islands and Fiji would yield results of international interest and importance ;

" Expresses its appreciation of the offer made by the Commonwealth Government to make available the services of one of its officers, specially experienced in the health problems of this particular area, for the purpose of assisting in such an initial survey ; and

" Requests the Medical Director to study the possibility of making the necessary arrangements for carrying out such a survey at an early date."

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**ANNEX 150a.**

C.H. 650.

## QUESTIONS ARISING OUT OF THE RESOLUTIONS ADOPTED BY THE INTERNATIONAL PACIFIC HEALTH CONFERENCE, MELBOURNE, DECEMBER 1926.

*Note by Dr. Norman White.*

Geneva, October 26th, 1927.

The attention of members of the Health Committee is directed to a letter addressed to the Secretary-General of the League of Nations by the Prime Minister of Australia, dated March 10th, 1927, copies of which were distributed at the meeting of the Health Committee in Paris in April last, and of which a further copy is attached for ready reference (Annex 152*b*).

The resolution adopted by the Eighth Assembly concerning the work of the Health Organisation of the League contains the following :

" The Assembly, noting the recommendations which have been made by the International Pacific Health Conference held at Melbourne in December 1926 in relation to work which might be undertaken by the Health Organisation for the study of health problems in the Pacific area, expresses its hope that the possibilities of action in this sense will receive full and early consideration by the Health Committee."

To assist the Health Committee in its consideration of this question, the Director-General of Health of the Commonwealth of Australia was asked to make proposals regarding the scope of the proposed enquiry, its probable duration and cost. The following proposals are based upon his suggestions :

The preliminary survey, which alone is under consideration at the present time, should be limited to Papua, New Guinea, New Hebrides, New Caledonia, the Solomon Islands and Fiji. Certain health problems are common to all these island groups, among which, however,

there are interesting differences with regard to the prevalence of some of the more important communicable diseases. A mission consisting of two experts would be sufficient to carry out the enquiry, the duration of which is estimated at six months.

The main objects of the enquiry would be :

1. The distribution of diseases of chief importance to the Pacific Islands as a whole, and the factors responsible for their excessive or limited prevalence, as the case may be.

2. The factors responsible for population fluctuations. This would involve an enquiry into methods of reporting births and deaths such as : census enumeration ; chief causes of morbidity and mortality in villages and among labour forces ; the causes underlying the marked decline in the birth rates characteristic of certain areas, etc.

Special attention would be devoted to the following diseases : food-deficiency diseases, bacillary dysentery, yaws, hookworm disease, malaria, venereal disease, tuberculosis and filariasis.

In most of the island groups referred to, more or less attention has been paid to these questions. The results of any investigations that have been carried out and of measures applied for the control of disease in the different groups would be compared and correlated.

Such a preliminary survey would indicate public health problems most urgently demanding attention and those that are ripe for concerted action or enquiry by the administrations concerned, and the manner in which such co-ordinated investigation could best be carried out.

### Cost of the Proposed Enquiry.

The estimated cost of a six-months survey of Papua, New Guinea, New Hebrides, New Caledonia, the Solomon Islands and Fiji on these lines would approximate 11,000 Swiss francs for each investigator, including cost of travelling, subsistence allowance, etc. (22,000 Swiss francs for two persons). If the offer of the Australian Government be accepted, no provision need be made for the salary of one of the investigators ; for the salary of the other, provision would probably have to be made, which, for a period of six months and including the cost of travel to and from Australia, may be estimated at 16,000 Swiss francs, the total estimated cost of the enquiry thus being in the neighbourhood of 38,000 Swiss francs.

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**ANNEX 150b.**

C.H. 596.

## RESOLUTIONS ADOPTED BY THE INTERNATIONAL PACIFIC HEALTH CONFERENCE, MELBOURNE, DECEMBER 1926.

*Letter from the Government of the Commonwealth of Australia to the Secretary-General of the League.*

Melbourne, March 10th, 1927.

I have the honour, by direction, to transmit herewith a copy of the report of the International Pacific Health Conference held at Melbourne from December 15th to 22nd, 1926, and am desired by the Prime Minister to express the great appreciation of the Commonwealth Government of the action of the Council of the League in sending a delegate to this Conference, and the Government recognition of the value of the presence of Dr. Norman White as the representative of the League of Nations Health Organisation.

In transmitting the report of the Conference and inviting your attention generally to the resolutions therein, I am to direct your attention particularly to Resolutions 3, 4 and 22, which contemplate action by the League of Nations Health Organisation in connection with the proposals generally adopted.

In connection with Resolution 3, the Commonwealth Government is prepared to make the necessary arrangements to discharge the function contemplated by this resolution, and no difficulty should be experienced in making locally the necessary arrangements with the Governments and administrations concerned.

In connection with Resolution 4, if the proposals generally are accepted, the Commonwealth Government would be prepared to adopt whatever procedure is agreed upon as a result of the discussions now proceeding in connection with Article 7 of the International Sanitary Convention of 1926.

Resolution 22 contemplates the initiation or promotion of schemes of co-ordinated research, and the Commonwealth Government, in accordance with the terms of this resolution, desires to bring under the notice of the League of Nations Health Organisation the considerations set forth therein. In connection with these proposals, it is thought possible that the Health Organisation may consider that the first desirable step would be an initial survey of those portions of the Austral-Pacific Regional Zone in which health problems are specially urgent.

If the League and the Office international d'hygiène publique (which has been communicated with in similar terms) concur in this course, the Commonwealth Government would be prepared to make available the services of one of its officers specially experienced in the health problems of this particular area for the purpose of assisting in this initial survey. In such an event, the salary of the officer concerned would be paid by the Commonwealth Government throughout the period of such survey.

(*Signed*) R. E. DEANE,
*Secretary.*

## ANNEX 151.

C.H. 675 (1).

## WORK OF THE SMALLPOX AND VACCINATION COMMISSION.

*Report by Professor Ricardo Jorge, Chairman of the Commission.*

[*Translation.*] Geneva, November 2nd, 1927.

The Smallpox and Vaccination Commission, which was reconstituted by the Committee's decision of October 30th, 1927, having received the proposal by the Health Section on the notification of smallpox, decides to submit to the Committee the following proposals :

### 1. EPIDEMICS.

An epidemiological enquiry into smallpox, with the object of estimating the present activity of smallpox, and interpreting as accurately as possible the statistics hitherto furnished regarding smallpox in its endemic and epidemic forms, will be addressed to the health administrations of various countries both directly by the Health Section and through the delegates of the Committee of the Office international d'hygiène publique.

This enquiry, which was also provided for in the programme submitted by the Commission to the Hague Conference, will deal with the following points :

(*a*) Since it is known that in most European countries smallpox has in the last few years been reduced to insignificant proportions, so that there are countries from which infection has almost entirely disappeared and others which, though suffering severely in the past, are now almost entirely free from this infection, it appears desirable, in view of the infrequency of the disease, to ask those countries to supply a detailed description of cases. Each case would be investigated, and a special register kept in accordance with a form prepared on a uniform basis. This individual form would be filled up for isolated cases, minor epidemics and the first cases of important epidemics, for which weekly registration would suffice. The enquiry would determine whether the case was proved, and was not a case of chicken-pox or other pseudo-variola, what was its origin, with indication of the source of infection and separating indigenous cases from cases imported from elsewhere—in the latter case mention being made of the place of origin.

As regards European or non-European countries where the movement of smallpox does not lend itself to a detailed registration of individual cases, the system might all the same be applied in districts where the disease appears rarely, or in regard to minor epidemics.

Countries where such enquiries have been made or where they are a permanent institution would be requested to furnish the results obtained.

(*b*) The known clinical forms of smallpox will be indicated—slight discrete, coherent, confluent and hæmorrhagic smallpox ; mention should be made of the frequency of the very serious confluent and hæmorrhagic forms. But the primary object of the enquiry from this point of view is to ascertain whether cases and epidemics should be classified as of two types : the old classical severe type and the recent mild type known as alastrim. Within the last two or three decades—in Europe seven or eight years ago—a noso-epidemic distinction has been made between these two types—the chief feature being their varying case fatality, the malignant type resulting in 20 to 25 per cent of deaths, while the proportion of deaths from the mild type is becoming negligible. It is therefore important to calculate this case fatality by rigorously checking each death and separating cases in which death must be attributed not to smallpox but to previous or concomitant morbid states.

(*c*) A comparative study of the two types will be all the more valuable if it is accompanied by data collected in each area on the local history of smallpox. Exact information will be obtained of its evolution. There are some countries where the alastrim type, which is now scattered over all parts of the world, does not seem as yet to have appeared, and where only the severe type of smallpox is known. There are quite a number of other countries where " mildpox " is or has been prevalent. In those countries, the two types sometimes exist side by side in different areas or succeed one another in the same area. There are districts in which, after a normal period, alastrim breaks out, and sometimes prevails for a long time, to be replaced after a varying period by the serious form of the disease. Both epidemics have even been found at the same time among the same population. A knowledge of these epidemiological cycles would be of great value.

(*d*) The two epidemics appear, at any rate in most cases, without any obvious causal connection and independently of one another. Alastrim breaks out, and sometimes remains for many years without any variation in its mildness, maintaining the same characteristics in spite of its duration and spread. It preserves the same characteristics in its migrations. This raises a question which exceeds in importance all other questions connected with the

epidemiology of smallpox. Are the two types interchangeable, that is to say, can the serious form lead to the mild form and vice versa ?

The importance of the answer from the point of view of epidemiology and prophylaxis will be readily understood. The observations of countries which experience or have experienced the two forms together will explain this doubtful point.

(*e*) The alastrim type sometimes assumes a diffusibility and a tenacity which appear more marked than in the case of classic smallpox. Data relating to these epidemic differences would be welcome.

This question is linked up with that of the value of vaccination as a means of preventing epidemics. Vaccination is generally agreed to be an effective means of defence against both types. Nevertheless, it would be expedient to enquire whether individual countries have experienced differences in its protective power ; whether, for example, alastrim has a greater resistance to vaccination.

Enquiry might also be made whether the mild nature of the epidemic has checked the progress of the anti-smallpox campaign by means of intensive vaccination.

2. Encephalitis.

Cases of post-vaccinal encephalitis are a recent phenomenon complicating the problem of anti-smallpox prophylaxis. The oldest cases date back perhaps to the beginning of this century, but they were observed recently during outbreaks in England in 1922 and in Holland in 1924 ; isolated cases were also met with in Germany, Austria, Czechoslovakia, Poland, France, Portugal and the United States. In England, they amounted in all to 82, and in the Netherlands to 124. The total number of known cases probably does not exceed 250. In the Netherlands, the mortality is 30 per cent and British mortality 50 per cent. It should be observed that the great majority of cases, 80 per cent, have an incubation period of ten to thirteen days reckoned from the date of inoculation. Emphasis must be laid upon the importance of obtaining data and instituting research concerning these nervous sequelæ of vaccination. We are already acquainted with the results obtained in the Netherlands and in England through the communications of Dr Jitta and Sir George Buchanan. The report of the Rolleston Committee in Great Britain is about to be published and as soon as it appears the Commission will consider its conclusions.

3. Experimental Research.

The epidemiological enquiry should be accompanied or closely followed by experimental research, as was recommended in the Commission's programme.

The standardisation of vaccine lymph as a measure against the excessive virulence which has recently been observed pretty generally is, thanks to the Berlin Conference, already a fact. All that is required is to press the various Governments and vaccine institutes to adopt the formulas proposed by the Conference.

Further research must be conducted into the nature of the viruses collected during epidemics of the mild and severe forms. This investigation has more than a scientific value. If the viruses should in fact prove to be absolutely identical, it will be easy to understand the merging of one type of epidemic into the other, and there will be a danger of a mild epidemic assuming the form of the severe type. This research should be recommended and entrusted to experts.

Lastly, no effort should be spared to solve by experiment the mystery surrounding cases of post-vaccinal encephalitis and to ascertain the causal virus and the determining conditions of encephalitic infection.

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**ANNEX 151a.**

C.H. 677.

## POST-VACCINAL ENCEPHALITIS IN THE NETHERLANDS.

*Note by Dr. Jitta.*

[*Translation.*] Geneva, November 30th, 1927.

On several occasions it has been my privilege — my sad privilege — to address you on the subject of certain affections of the nervous system observed after smallpox vaccination.

The subject, I feel, is of such importance that we cannot afford to neglect it here. For the Netherlands, it has become an urgent problem in that the public and Government are alarmed, and the medical profession is anxious.

We can certainly lay claim to a most undesirable prominence in this respect, for although cases of post-vaccinal encephalitis have been reported elsewhere—in Switzerland, Poland, Portugal, France and particularly in England—the Netherlands, for reasons which we are unable to ascertain, have suffered most of all.

The lymph itself can hardly be to blame, since cases have occurred after the use of strains from widely different sources both in my own country and abroad. There is, however, one hypothesis to which I must refer, namely, that the accidents may be the result of passage through the rabbit. The authors of this theory base their arguments on what they hold to be an indisputable fact, namely, that vaccination has always been innocuous, and that disastrous results have only occurred after the virus has been stimulated by passage through the rabbit.

I must say that, at present, I myself cannot accept this theory, because passage through the rabbit is not a recent innovation ; in the Netherlands, at least, this system has been employed since 1908 or 1909, whereas no definitely verified complications took place before 1924.

At the end of December 1926, several cases of smallpox occurred in Dutch Limburg. More than 90,000 persons were vaccinated and displayed no untoward nervous symptoms, though the vaccine employed had been directly passed through rabbits, because the authorities had to satisfy themselves that the desired effects would be produced.

We have, moreover, discovered in medical records a case which occurred as far back as 1903, the description of which coincides in most respects with the cases of encephalitis now observed.

The theory which still seems to me the most plausible is that a hitherto unknown virus exists in a latent state in certain individuals, and that vaccination stimulates this virus into activity. This would to a certain extent explain the preference which encephalitis shows for certain countries—the Netherlands, for instance.

I will not further enlarge on this point, but I would remind you that affections of the nervous system, be they forms of encephalitis, encephalomyelitis, or poliomyelitis, are not entirely uncommon as sequelæ to influenza, measles and even scarlet fever and whooping-cough.

I have had a graph prepared showing the cases of post-vaccinal encephalitis observed in the Netherlands from 1924 up to August of this year.

In all, 124 cases were observed during this period, of which 38 proved fatal.

Cases become numerous in March and completely disappear in November and December, although in the last two months of these three years, reckoned together, lymph was supplied for over 70,000 vaccinations.

It is also to be noted that infants under 1 year of age have, with a single exception, been unaffected. Though 27,405 children of this age were vaccinated, only 1 case occurred, whereas, among children of from 1 to 3 years of age, we find 6 cases among the 22,407 children vaccinated, and, among children from 3 to 6 years of age, 98 cases out of 2,586 vaccinations.

Finally, country districts seemed to be more affected than urban centres, a fact which has led the Inspector-in-Chief, Dr. Terbug, to suppose that in populous centres a certain immunity has been acquired.

The number of cases of post-vaccinal encephalitis is 1 to every 5,000 vaccinations, there being 1 fatal case to every 15,000 vaccinations.

You will understand the difficulty of our position. Are we to continue to make the vaccination of children before they are allowed to go to school compulsory, when the operation may, in some cases, have fatal consequences ?

Several months ago, we decided to employ sterile lymph in order to avoid, at any rate, all possibility of contamination by foreign germs. We knew that the Spanish authorities had been successfully using Levaditi's lymph, known as Levaditi's neuro-vaccine, the neurotropic effect of which is now known to be negligible.

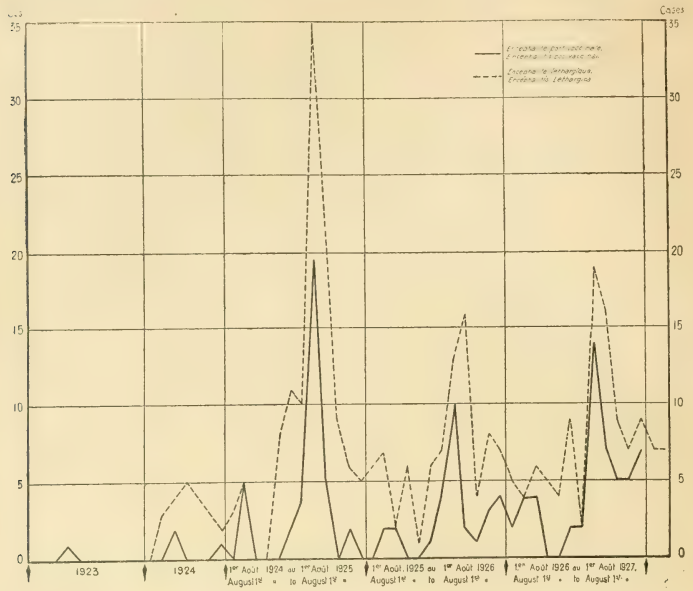
We understood — and Professor Pittaluga has kindly confirmed our impression—that, at the Alfonso XIII Institute at Madrid, Dr. Gallardo had performed 2,500,000 vaccinations with neuro-vaccine without a single case of nervous complications. We have performed about 50,000 vaccinations with this virus, but cases of post-vaccinal encephalitis have continued to occur as before. As far as I am aware, there have been five more cases, of which one was fatal.

This, then, is a further fact which tends to prove that the lymph itself is not to blame. Neuro-vaccine has produced practically the same effects as dermo-vaccine. Local reactions have, if anything, been more violent, and several cases of generalised vaccinia have been reported. In any case, we are faced with a phenomenon no explanation of which is as yet forthcoming.

Number of Cases of Post-vaccinal Encephalitis according to the Age of the Persons vaccinated.

| Age-group. | | | Number of vaccinations performed in each age-group. | | | | 1 case per number of vaccinations. |
|---|---|---|---|---|---|---|---|
| | | | 1924 | 1925 | 1926 | Total | |
| Under 1 years | 1 | | 9,989 | 8,419 | 8,997 | 27,405 | 27,405 |
| 1 year | 1 | 42 | 59,721 | 58,967 | 60,570 | 179,258 | 4,268 |
| 2 years | 7 | | | | | | |
| 3 „ | 34 | | | | | | |
| 4 „ | 27 | 79 | 79,936 | 85,642 | 87,845 | 253,423 | 3,208 |
| 5 „ | 37 | | | | | | |
| 6 „ | 15 | | | | | | |
| 7-12 years | 1 | | 11,499 | 11,072 | 12,774 | 35,345 | 35,345 |
| | 123 | | | | | | |
| Age unknown | 1 | | | | | | |

GRAPH SHOWING ENCEPHALITIS CASES IN THE NETHERLANDS MONTH BY MONTH, 1923-27.




**ANNEX 152.**

C.H. 660.

## WELFARE OF BLIND PERSONS AND THE PREVENTION OF BLINDNESS.

*Note by the Medical Director.*

Sir George Buchanan, in a letter dated August 22nd, 1927, expressed the wish that the Health Committee should consider the possibility of examining at its October session the following question :

" Consideration of the steps which can be taken by the Committee to receive and exchange information on matters of international interest which affect the welfare of blind persons and the prevention of blindness."

*Letter from Sir George Buchanan to the President of the Health Committee.*

London, August 22nd, 1927.

My reason for making this request is twofold. First, the British Ministry of Health, with the aid of a special Advisory Committee on the Welfare of the Blind, is responsible for the general supervision of the efforts of local authorities and voluntary agencies in this matter, and for the allocation of public funds in support of these efforts.

The nature of this work and responsibility may best be gathered from the new *Handbook on the Welfare of the Blind in England and Wales*, which is about to be issued from the Ministry of Health. I can supply published copies for the information of my colleagues on the Committee when they are available.

In the course of its work, the Advisory Committee has frequently felt the need for more exact information on the practice of foreign countries in analogous matters. The same need has been felt in Scotland, where the Secretary of State for Scotland exercises similar functions, with the aid of a Scottish Advisory Committee. The kind of information which these Committees would specially desire to obtain is illustrated by the annexed specimen questionnaire.

Secondly, the Ministry of Health has received indications that many nations since the war have developed a keen interest in the welfare of the blind, and frequently are also in need of information on the subject from foreign sources. Thus :

In July 1927, the Belgian Ambassador (Prince Reginald de Croy) asked the British Government, through the Foreign Office, for particulars regarding the statutory provisions and general arrangements made for the education and training of blind children in this country.

In 1926, the Italian Ambassador asked for almost identical information.

In 1925, the Belgian Minister of Justice asked (through Baron Moncheur) for detailed particulars regarding the care and treatment of the blind in this country.

In 1923, the American Consul-General asked for statistics regarding the blind in this country.

In 1922, the Netherlands Chargé d'Affaires asked for particulars regarding the care of the physically and mentally deficient in this country, including the blind.

In 1922, the Czechoslovak Minister also asked for particulars regarding the general care and treatment of the blind in this country.

In 1920, the Italian Ambassador and the Belgian Minister both asked for detailed particulars regarding the welfare of the blind in this country.

In addition, certain enquiries have been made from time to time by individuals or societies in the United States and Canada for particulars regarding certain aspects of the work for the blind carried on in this country.

For these reasons, therefore, I would welcome the opportunity of presenting this question at the next session.

## Welfare of the Blind in Various Countries.

### *Suggested Questionnaire.*

1. (*a*) Are there any accepted definitions of blindness ?
   (*b*) If so, please state them and the purpose for which the definition is used.
   (*c*) Is the definition the same for children as for adults ?

2. How is the welfare of the blind administered, *i.e.*, whether wholly or partly by the National or Federal Government, State or province, local authority or voluntary agencies?

3. If wholly or partly by the National or Federal Government, State or province : (*a*) What is the nature and extent of their obligations ? (*b*) By or through what bodies are these obligations carried out ? (*c*) To what extent is the work subsidised from public funds ?

4. (*a*) What services (if any) are provided for blind persons not resident in institutions for the blind and by whom ?
   (*b*) Are the blind visited and instructed in their own homes ? and
   (*c*) If so, is it necessary for the visitors to have any special qualifications, by examination or otherwise ?

5. What provision is made and by whom for :
   (i) Blind children under school age ?
   (ii) (*a*) The education and elementary training (industrial or other) of children of school age ? (*b*) Between what ages are blind children required to attend school ? (*c*) Is any maintenance allowance given to such school-children ?
   (iii) The training (and maintenance while under training) of blind persons beyond school age in industrial or professional occupations ?
   (iv) The employment of trained blind workers in : (*a*) special institutions for the blind ; (*b*) their own homes ; (*c*) in ordinary workshops and factories ; and (*d*) elsewhere ?
   (v) (*a*) Providing financial assistance to blind persons who for some reason or other are incapable of being employed ? and (*b*) for promoting their social welfare ?
   (vi) Blind persons who are also physically or mentally defective ?
   (vii) Providing homes and hostels for the blind ?

6. Are there any old-age or disability pensions for the benefit of the blind, and, if so, under what conditions are they given ?

7. Are blind persons dealt with in any national sickness or disability insurance scheme ?

8. What are the main occupations carried on by the blind :
   (i) In special workshops for the blind ?
   (ii) In their own homes ?
   (iii) In professions ?
   (iv) In ordinary factories ?
   (v) Otherwise.

   Please indicate in particular any industries in groups (i) and (ii) above which are not carried out in England, Wales and Scotland, or which are not apparently so highly developed in these countries (see list attached).

9. (*a*) On what basis are earnings calculated in workshops for the blind ?
   (*b*) Are these earnings supplemented ?
   (*c*) If so, on what basis ?

10. Has any investigation been made for developing new industries for the blind, and, if so, with what result ?

11. (*a*) What is the total number of blind persons, male and female, in the country ?
(*b*) What is the proportion of blind persons to every 1,000 persons of the general population of the country ?
(*c*) What definition of blindness is adopted for the purpose of these figures ?
Please append any detailed analysis of the number and classification of the blind, if available ; also any statistics that may be available concerning the causes of blindness.

12. Is there any organised work being conducted for the prevention of blindness, and, if so, of what nature, and by whom conducted ?
Please furnish in duplicate a copy of any official publications, Acts of Parliament, etc., relating specifically to the blind. Also a list of the principal institutions and societies for the blind in the country, with, if possible, copies of their last annual report and any other reports of interest on the subject.

STATEMENT OF INDUSTRIES CARRIED ON AND ARTICLES MADE BY THE BLIND IN GREAT BRITAIN.

| | Industries. | Articles made. |
|---|---|---|
| 1. *In Institutions.* | Basket and cane work. | Hampers, commercial, sport and household baskets of all kinds. |
| | Bedding. | Mattresses and palliasses of all kinds, cushions, repair work. |
| | Boots. | Making and repairing. |
| | Brushes. | Commercial, household and fancy of various kinds. |
| | Carpentry. | Household fruniture, trays, etc. |
| | Chair-seating. | Rush and cane. |
| | Firewood. | Firelighters, kindling, etc. |
| | Hand-knitting } | Knitted clothing (almost any ar- |
| | Machine-knitting } | ticles). |
| | Mats. | Commercial and household soir ; coco-fibre mats, and ships' fenders. |
| | Making knitting-needles and stair-rods. | Needles and rods of sicaloid and erinoid composition. |
| | Piano tuning and repairing. | — |
| | Printing and bookbinding. | Books and magazines. |
| | Rope, twine and net making.[1] | — |
| | Upholstery. | Repairs. |
| | Wire-work. | Mattresses, brushes, riddles. |
| 2. *In their own Homes.* | Braille copying. | — |
| | Baskets. | Commercial, household and fancy of all kinds. |
| | Boots. | Making and repairing. |
| | Brushes. | Pitch Pan variety and wiredrawn work. |
| | Cane-work. | Small basket-ware, trays, etc. |
| | Crochet work. | General. |
| | Hand-knitting. | General. |
| | Hand-knitting. | Garments, socks, small household articles. |
| | Leather-craft. | Simple purses and slippers. |
| | Machine-knitting. | Garments, socks, etc. |
| | Mats. | Commercial and household coco-fibre mats. |
| | Nets. | Bags, hammocks, etc. |
| | Raffia-work. | Fancy household articles. |
| | Fancy sewing. | Cosy covers, table-centres, etc. |
| | Taxidermy. | Stuffed birds and animals. |
| | Woodwork. | Small household and fancy articles. |
| 3. *In Professions, etc.* | Commercial travellers and salesmen. | |
| | Law. | |
| | Massage. | |
| | Ministry of religion. | |
| | Music, including organists, piano-tuning, and teaching. | |
| | Poultry farming. | |
| | Teaching at school, in homes and elsewhere. | |
| | Typing. | |
| | Lecturing. | |

[1] Industry does not pay at present. Information as to any special machines used would be welcome.

C.533. 1927. III
[C.H. 666]

## ANNEX 153.

## REPORT ON THE WORK OF THE ELEVENTH SESSION OF THE HEALTH COMMITTEE

*Held at Geneva from October 28th to November 3rd, 1927.*

### A. Malaria.

The Chairman of the Malaria Commission presented a report on the progress of the work in 1927, referring to the study tours, field and laboratory investigations, the invitation of the Government of India and the malaria courses.

The Health Committee adopted the following resolutions presented by the Chairman on behalf of the Malaria Commission:

I.

" The Health Committee,

" Having considered in all its bearings the report (C.H./Malaria/86) of Colonel James and Professor Swellengrebel on their study tour in the United States:

" Considers that this report, which contributes fresh data to those which form the basis of the general report of the Malaria Commission in Europe, raises questions which call for detailed consideration at a future general meeting of the Commission, to which will be invited all the Corresponding Members, as well as the colleagues from the United States, who have been invited to participate as Corresponding Members of the Commission;

" Requests the Medical Director to take the necessary steps to convoke such a session and to obtain for the purpose of this meeting the observations on the above-mentioned report of all Corresponding Members of the Commission, as well as of the authorities of the United States Public Health Service and of the International Health Division of the Rockefeller Foundation."

II.

" The Health Committee,

" Having taken note of the measures proposed by the Malaria Commission at the instance of Professor Swellengrebel, who was charged with a special mission, on behalf of the League of Nations' Commissioner for the Establishment of Bulgarian Refugees, for the organisation of an effective campaign against malaria in the Burgas region, considers that these measures are already yielding results, and suggests that they should be continued:

" Recognises in agreement with Professor Swellengrebel that the prevention of malaria in this region is only a part of the health problem of the refugées, that the disappearance of this disease is dependent on other factors, and consequently expresses the hope that the public health and medical services will be developed, not only in the Burgas district, but also in other districts inhabited by refugees, and, in particular, in the second area selected by the Commissioner of the Commission.

" The Health Committee appreciates greatly the collaboration that the International Health Division of the Rockefeller Foundation is, in principle, prepared to give to the extension of anti-malaria measures in the second district suggested by the Commissioner of the League of Nations for the Establishment of Bulgarian Refugees, these measures forming part of a general public health programme.

" The Health Committee shares the views of the Malaria Commission as to the very great advantages offered by this opportunity of co-ordinating the work to be carried out in accordance with this programme with the work already being done in the Burgas district. For the purpose of such co-ordination the Health Committee decides to utilise the services of the Malaria Commission as well as the technical assistance of the Health Section."

III.

" The Health Committee,

" Notes that the researches undertaken by the Malaria Commission, and by certain of its members, will be continued in 1928, notably:

" (*a*) The problem of the Deltas, the study of which has been carried out during the last two years (Danube, Ebro, Po).

" (*b*) Certain research problems relating to the epidemiology of malaria:

" Professor Nocht: Experimental Hæmoglobinuria.

" Colonel James: Researches on Experimental Malaria;
The Relationship of the Habits of Anopheles to their Capacity for spreading Malaria.

" Professor Ottolenghi: Experimental Infection of Anopheles in relation to the Epidemiology of Malaria.

" Professor Swellengrebel: A Study in Holland of the Causes of Anophelism without Malaria. Local Demonstration of Anti-larval Measures."

IV.

" The Health Committee,

" Accepts with great appreciation the invitation of the Government of India to the Malaria Commission, and decides to discuss in detail at its April session the detailed plan of study to be presented by the Malaria Commission on that occasion."

V.

" The Health Committee,

" Notes that the work of the Malaria Commission on kinetum and secondary alkaloids of cinchona includes the recommendation as to the utility of continued investigations, particularly of the various kinds of kinetum, and asks the Malaria Commission to continue its studies along the lines indicated in the report of its President. "

VI.

" The Health Committee,

" Expresses its appreciation to the directors of the malaria courses at Hamburg, London and Paris, and earnestly hopes that they will agree to continue these courses in 1928;

" Requests the Medical Director to get into touch with the authorities of the Superior School of Malariology at Rome, in order to organise, by means of this School, a course similar to those held during recent years in the above-mentioned centres;

" Considers that it would be useful to direct the attention of the Public Health Administrations to the fact that the Superior School of Malariology at Rome has organised a special course for engineers;

" Recommends that the present duration of the malaria courses should continue, and that certain subjects (clinical aspects of malaria and sanitary engineering measures), which it is impossible to develop sufficiently during the courses, might be taken up at the beginning of the practical studies;

" Emphasises the great advantage of obtaining from those in charge of the schools and of the practical studies a programme of the subjects treated and of the practical work undertaken sufficiently detailed to enable the Public Health Administrations to select the school and the area for field studies best adapted for the participants from such administrations;

" Suggests to the directors of the schools and of the practical studies the utility of organising " seminars " during the courses and the practical studies. This method would, on the one hand, enable the participants to make intensive studies of special subjects and, on the other, would allow the directors of the theoretical and practical courses to advise the participants better in regard to their work, on account of the closer contact thus established. There would also be advantages in the participating of the personnel directing the practical studies for a certain time in the courses at Hamburg, London, Paris and Rome;

" Requests the Medical Director to get into touch with the directors of the schools and of the practical studies, in order that abstracts of the lectures in the schools and in the field in French, English and the language of the country concerned might be sent to all the participants several days before the commencement of the course. This practice would greatly facilitate the studies of those participants who do not possess a sufficient knowledge of the language of the country. "

## B. Sleeping-Sickness.

The Health Committee discussed the work of the International Sleeping-Sickness Commission, which had completed its mission in Equatorial Africa, with a view to giving effect to the technical and administrative recommendations contained in its report. The following resolution was adopted:

" The Health Committee,

" Having taken note of the results of the work accomplished by the International Sleeping-Sickness Commission in Equatorial Africa under the Chairmanship of Dr. Duke — a work full of difficulty:

" Expresses its sincere thanks to the members of this Commission, as well as to the Sanitary and Colonial Administrations which have supported it in its task;

" Invites the Commission of Experts on Sleeping-Sickness and Tuberculosis in Equatorial Africa* to examine the scientific and administrative conclusions resulting from the final report of the International Commission;

" Requests the Council of the League of Nations to be good enough to make enquiries of the Governments which participated in the first International Conference on Sleeping-Sickness, held at London in 1925, whether they would favour convoking the technical delegates to a second Conference with the object of studying the final report of the Commission of Enquiry, together with the observations of the Commission of Experts;

* Appointed by the Provisional Health Committee of the League of Nations May 15th, 1922.

" Recommends to the Council, in the event of an affirmative reply, to place at the disposal of the Governments, for the work of this Conference, the technical collaboration of a delegation from the Health Committee and from the Health Section of the Secretariat;

" Places itself at the disposal of the Council and of the Governments interested for the continuation of this international effort, either by technical studies or by action to be taken as an organism of collaboration between the various sanitary administrations. "

### C. Cancer.

The Health Committee, having studied the report submitted by the Cancer Commission on the results of its work, adopted the following resolution:

" The Health Committee,

" After consideration of the report submitted by the Cancer Commission (C.H.631), as well as the resolutions adopted by that Commission at its meeting on November 1st (C.H./Cancer/58):

" 1. Expresses its thanks to the Commission, and associates itself fully with the observations of the Commission regarding the value of the services which have been rendered by the Sub-Commission presided over by Dr. Greenwood, and by the other experts whom the Commission has consulted;

" 2. Accepts the view of the Commission that the particular enquiries on which it has so far been engaged may be regarded, for practical purposes, as having been completed;

" 3. Requests the Commission to present for consideration at the next session a reasoned analysis of the propositions which have been, or which may be, received for new work of an international character on the subject of cancer.

" To facilitate this task:

" 4. Requests the Medical Director, after consultation with the President of the Commission, to make any necessary arrangements for preliminary consultations with appropriate experts, especially cancerologists, from different countries. "

### D. Smallpox.

The Health Committee, having considered the report of the Commission on Smallpox and Vaccination, which was entrusted with the task of studying the possibilities of securing information on the incidence and character of smallpox from various sanitary administrations, adopted the following resolution:

" The Health Committee,

" Accepting the recommendation of the Commission on Smallpox and Vaccination:

" Requests the Medical Director to invite different Sanitary Administrations to furnish the information on the incidence and character of smallpox which is indicated in the memorandum presented by the Commission, and to analyse the replies received for the consideration of that Commission and ultimate report to the Health Committee. "

### E. Opium.

The Health Committee, having entrusted to a sub-commission the study of the recommendation formulated by the Permanent Committee of the Office international d'hygiene publique in regard to eucodal and dicodide, adopted the following resolution:

"The Health Committee,

" Having taken note of the recommendation formulated by the Permanent Committee of the Office international d'hygiene publique in its report of May 6th, 1926*:

"Decides to adopt the conclusions of this report and in consequence to inform the Council of the League of Nations, in conformity with the stipulations of Article 10 of the International Opium Convention of February 19th, 1925, that eucodal and dicodide are narcotics liable to produce injurious effects analogous to those of the products expressly referred to by that Convention, and that consequently they should come under the said Convention.

" It further decides, on consideration of the report of the Opium Sub-Commission, to ask the Permanent Committee of the Office international d'hygiene publique, to examine the injurious effects of dilaudide, on the one hand, and of benzyl-morphine and other esters of morphine, on the other, as narcotics liable to cause toxicomania, and to state whether it is of opinion that those products, or certain of them, should also come under the International Opium Convention."

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* Minutes of the extraordinary session of the Permanent Committee of the Office international d'hygiène publique held in May and June 1926, page 34.

## F. Rabies.

The Health Committee, having considered the report of the International Rabies Conference (C.H.604), adopted the following resolution:

" The Health Committee,

" Having considered the resolutions adopted by the International Rabies Conference concerning the enquiries which the Health Organisation of the League of Nations has been invited to organise, and recognising the importance of securing uniformity in the tabulation of the results of anti-rabies treatment in the different Anti-Rabies Institutes:

" Requests the Medical Director to obtain the co-operation of an expert or experts in organising the work referred to, in the manner decided upon by the Committee."

## G. Collaboration with Latin America.

The Council of the League of Nations having requested, on the recommendation of the Assembly, the opinion of the Health Committee on technical collaboration with the countries of Latin America, the Health Committee, after considering the resolutions of the Assembly (see Appendix) and the reports presented by the President of the Health Committee and by the Medical Director to the Council of the League of Nations and to the Health Committee, decided to express its opinion to the Council of the League of Nations in the following resolution:

" The Health Committee,

" Having considered with the greatest interest the report submitted by its President and the Medical Director on the mission which they have accomplished in Latin America:

" Expresses its satisfaction at the welcome which was given to its delegates and at the collaboration between various South American countries and the Health Organisation of the League of Nations which has resulted;

" Approves the programme prepared to give effect to that collaboration, and considers, in particular, that the technical collaboration with the countries of Latin America would be given an enduring basis by means of arrangements such as have been suggested by the Brazilian and Argentinian authorities in regard to the study of leprosy, the problem of infant welfare and the organisation of international post-graduate instruction in hygiene;

" Is prepared to discuss with Professor Araoz Alfaro and Professor Carlos Chagas the details necessary to put the arrangements provided for in these proposals into practice;

" Meanwhile, requests the Council of the League of Nations to be good enough to seek a method of concluding such arrangements with the countries concerned as to enable the schools and the study centres established in Argentine and Brazil to be placed under the auspices of the League of Nations;

" Notes with satisfaction that the Government of Uruguay is ready to collaborate closely with the Joint Commission of Experts for the Study of the Relationship between Public Health Services and Health Insurance Organisations, and in particular that the President of the National Health Council of Uruguay is prepared to come to Europe in order to keep in touch with the work of that Commission. "

## H. Collaboration with the Far East and the Pacific.

Having referred to a sub-commission the proposal concerning a study of health conditions in the Pacific area and the constitution and procedure of the Advisory Council of the Singapore Bureau, the Health Committee adopted the following resolutions:

### I.

" The Health Committee,

" Having studied, in accordance with the resolutions adopted by the Eighth Assembly, the proposal contained in Resolution 22 adopted by the International Pacific Health Conference in December 1925, relating to the study of health problems in the Pacific area;

" Considers that a survey of the health conditions in Papua, New Guinea, the New Hebrides, New Caledonia, the Solomon Islands and Fiji would yield results of international interest and importance;

" Expresses its appreciation of the offer made by the Commonwealth Government to make available the services of one of its officers, specially experienced in the health problems of this particular area, for the purpose of assisting in such an initial survey; and

" Requests the Medical Director to study the possibility of making the necessary arrangements for carrying out such a survey at an early date. "

II.

" The Health Committee has taken note of the representations made by certain administrations concerning the composition of and the draft Rules of Procedure for the Advisory Council of the Eastern Bureau, which will be considered at the forthcoming meeting of the Council. The Advisory Council being an integral part of the Health Organisation, its resolutions and recommendations will in all cases be referred to the Health Committee for consideration and approval; nevertheless, the Health Committee recognises that the Advisory Council should enjoy a greater degree of autonomy than that conferred upon the Commissions of the Health Committee under Article 10 of the Rules of Procedure of the Health Committee. "

I. Report of the Medical Director on the Work accomplished since the Ninth Session.

" The Health Committee,

" Approves the report of the Medical Director on the work accomplished since the ninth session (February-October 1927), and in particular:

" (*a*) Accepts the programme of interchanges for 1928 in the light of the suggestions made by the Health Committee, namely, an interchange in Italy, an interchange devoted to rural problems of sanitary engineering, a collective study tour in the Kingdom of the Serbs, Croats and Slovenes and neighbouring countries of East Central Europe, and an interchange given over to the study of measures applied to the control of milk;

" Notes with satisfaction that the liaison with Far-Eastern countries, particularly China and Japan, with Latin-American countries and with other overseas States, will be continued;

" Requests its bureau to consult the President and the Director of the Office international d'hygiene publique on the programme of study of the methods of deratisation by means of hydrocyanic acid, and asks the Medical Director to examine the possibilities of giving effect to these proposed investigations;

" (*b*) Approves the programme of work of the Standards Commission as described by the President, including the convocation of conferences on matters relating to syphilis;

" (*c*) Notes the report (C.H. 634) of the Vienna Conference of Health Experts on Infant Welfare requesting the Medical Director to refer to the Commission on Smallpox and Vaccination those questions which fall within its competence. "

J. Education in Public Health.

The Health Committee, having considered the report (C.H. 661) on the Conferences held at Budapest and Zagreb, and noting that the directors of schools of hygiene in East Central Europe, notably those of Budapest, Prague, Warsaw, Zagreb and other allied schools and institutes of that country, had made recommendations to the Health Committee with a view to future technical collaboration, adopted the following resolution:

" The Health Committee:

" 1. On account of the special importance attached to questions regarding the recruitment and technical training of public health officers and other sanitary technicians, recognised anew on the occasion of the Conferences at Budapest and Zagreb, decides to reconstitute the Commission which was formerly specially entrusted with these questions and to designate it as the Commission on Education in Public Health and Preventive Medicine;

" 2. Gives its adherence to the resolutions adopted by the above-mentioned Conferences, and decides:

" (*a*) To encourage reunions of the directors of schools of hygiene whenever deemed opportune by the Bureau of the Committee;

" (*b*) To assist as far as possible the studies to be pursued in common by the schools at Budapest, Prague, Warsaw, Zagreb and other allied schools and institutes of that country, agreeing in consequence to the subjects proposed;

" (*c*) To ask the Commission on Education in Public Health and Preventive Medicine to take such measures as may be necessary in view of the competition set up by the schools of public health at Budapest, Prague, Warsaw, Zagreb and other allied schools and institutes of that country. "

## K. Welfare of the Blind.

The Health Committee, having considered the communication and statement of Sir George Buchanan on the desirability of obtaining information regarding measures for the welfare of the blind, adopted the following resolution:

" The Health Committee,

" Taking note of the communication made by Sir George Buchanan on the desirability of obtaining information regarding the measures which are taken in different countries for the welfare of the blind:

" Requests the Medical Director to take the steps necessary to obtain such information and to present it in due course to the Committee. "

## L. Blood Groups.

The Health Committee, having heard the statement of the President in regard to the use of a uniform nomenclature for blood groups, and on the desirability of standardising the sera employed in the determination of such groups, adopted the following resolution:

" The Health Committee,

" Notes with satisfaction the work of the President in securing the adoption by those principally interested in the subject of a uniform nomenclature for blood groups, and

" Requests him to get into touch with the organisations concerned with the determination of blood groups in order to present for their consideration the question of the international standardisation of the various standard sera employed. "

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### Appendix.

### Results of the Mission carried out in Certain Latin-American Countries by the President of the Health Committee.

The Assembly,

1. Having taken note of the report of the President of the Health Committee (document A. 49. 1927. III) on the possibilities of technical co-operation with public health and medical authorities in Latin-American countries, and also of the report on the work of the Conference of Health Experts on Infant Welfare held at Montevideo;

2. Notes with satisfaction that the activities of the Health Organisation of the League of Nations have extended to several countries of Latin America and that fruitful co-operation may be anticipated as the result of the Health Committee's mission;

3. Welcomes the practical suggestions for continued co-operation which have been made by the health authorities and experts of the Argentine, Brazil and Uruguay;

4. Considers that the realisation of these suggestions would result in creating links between the health work of the League and the activities of national health administrations in these countries and would represent a good method of developing the work of the League's technical organisations in Latin America;

5. Requests the Council, after having obtained the Health Committee's advice on these different suggestions for co-operation with Latin-American countries, to consider how they may be put into practice

[*Resolution adopted by the Assembly of the League of Nations on September 20th*, 1927 (*morning*).]

# INDEX


**Advisory Council of Singapore Bureau**
*See* Epidemiological Intelligence Service: Eastern Bureau of Singapore

**Araoz Alfaro, Professor**
Election as Vice-President of Committee 5, 9

**Assembly, Eighth Session**
Reports and resolutions *re*
League mission to Latin-America 6, 62-5, 178
Work of Health Organisation 5-6, 54-7

**Benzoyl-morphine**
*See* Opium and other dangerous drugs

**Biological and Serological Products, Standardisation of**
in Latin-America 63
Medical Director's report (discussion and text) 31-2, 87-8

**Blind Persons, Welfare of, and Prevention of Blindness**
Note by Medical Director (discussion and text) 49, 170-2
Resolution of Health Committee 178

**Blood Groups**
Nomenclature of different blood groups and standardisation of sera employed
Discussion 6, 7
Resolution of Health Committee 178

**Budapest, Public Health School at**
*See under* Public health education.

**Budget of Health Organisation for 1928** 6, 50-1

**Bureaux for Epidemiological Intelligence**
*See* Epidemiological Intelligence Service

**Cancer Commission, Work from 1923 to 1927**
Members 156
Report presented by Sir G. Buchanan
Discussion 37-40, 46-7
Text 146-156
Bibliographical appendix 157-9
Resolution of Health Committee 46-7, 175
Tables showing mortality 147-9, 151

**Carrière, Dr**
Election as Vice-President of Committee 5

**Close of Session** 51

**Commissions, Technical**
*See under the subjects concerned*

**Committee, Health**
*See* Health Committee

**Conferences and Congresses on Health**
*See the subjects concerned*

**Council of League**
Reports on League mission to Latin-America 62, 66

**Darling Prize Medal Fund** 7, 49-50, 72

**Death, International Nomenclature of Causes of**
Documents *re* 121-2
List of causes (provisional) 122-5
Work of Commission of Expert Statisticians, March 1927 35-7, 89-90, 119-125
Observations of certain governments 126, 127
*See also* Infant welfare and mortality enquiry

**Deratisation** 16, 144, 177

**Diseases, Statistics of**
*See* Morbidity statistics

**Dysentery and Measles**
in Pacific Islands 44

**Education in Public Health**
*See* Public health education

**Encephalitis, Post-vaccinal**
Discussion 47-8
in the Netherlands, Note by Dr Jitta 168-170
Report by Prof. Jorge 168

**Epidemiological Intelligence Service**
Conference, Agenda and work 76, 101-2
Eastern Bureau at Singapore
Draft rules of procedure of Advisory Council
Examined 13-14, 45-6, 78-9, 164-5
Resolution of Health Committee 177
Text 95-6
Duties under Sanitary Convention, 1926
Letter (March 30, 1927) from Medical Director to Administrations associated with Bureau and replies 96-8
Medical Director's report 79
Reports on work by
Assembly 54-5, 57
Medical Director 13-15, 76-9
Geneva Bureau Office, Work of
Medical Director's report,
Discussion and text 9-13, 75-6
Publications 9-12, 14, 75, 77, 85, 102

**Eucodal-dicodide**
*See* Opium and other dangerous drugs

**Expert Statisticians, Commission of**
*See* Statistics and statisticians

**Far East Commission, Work of**
Report by Dr Jitta (discussion and text) 43-5, 164-5

**Fiji, Health Conditions in**
*See* Pacific Islands etc.

**Health Committee**
Agenda of session 5, 54
Agreement with Office int. d'hygiène publique 14-15, 55, 57
Assessors, Appointment of expert 54
Close of session 51
Date of 12th session 48
Members
Absence and date of arrival of certain members 5
List 3
Participation of Dr. Stampar in work 5
Report on work of 11th session
Discussion 49-50
Text 173-8
Representation at Int. Conference on Syphilis and at 13th Int. Red Cross Conference 5
Vice-Presidents, Election of
Invitation to Dr. Carrière and Prof. Alfaro 5, 9

**Health Insurance**
*See* Insurance, Health

**Health Organisation**
Budget for 1928 6, 50-1
Work of, examined by Assembly 54-7

**Infant Welfare and Mortality Enquiry**
in Europe
Assembly report 56
Documentation of Vienna Conference 112-115
Medical Director's report (discussion and text) 32, 89
Vienna Conference, Report on work
Appendices 108-118
Noted by Health Committee 177
Text 105-8
Infectious diseases, Preventive immunisation against 107-8, 117
in Latin-America; Montevideo Conference, June 1927
Experts attending 58, 60, 105-6
Reports on work by
Assembly 62-4, 65
Conference 59-62
President of Health Committee (discussion and text) 21-6, 57-8
Resolution of Health Committee 176

**Infant Welfare and Mortality Enquiry** *(continued)*
Mortality enquiry by
Montevideo Conference 22, 23-4 59-62, 63
Vienna Conference 106-7, 108-112, 116
Poliomyelitis, Questionnaire on 118
Still-births, *see that title*

**Infectious Diseases, Preventive Immunisation against** 107-8, 117

**Influenza**
Report on epidemic 1926-27 13, 76

**In surance, Health**
in Latin-America: Co-operation with Health Committee 23, 26, 59, 64
Work of Joint Commission of Experts on relations between health services and insurance organisations 58, 88, 103-5

**Interchanges of Public Health Personnel**
*See under* Public Health Services, etc.

**Latin-America, League Mission and Establishment of future Liaison with**
Credits for liaison 6
Reports by
Assembly, Second Committee of 62-5
Council, adopted Sept. 27, 1927 66
President of Health Committee and Medical Director 57-9
Action taken by Council 62
Discussion 21-6
Resolutions of:
Assembly (8th session) 6, 65, 178
Health Committee, Nov. 2, 1927 25-6, 176
*See also* Infant welfare enquiry, etc.: in Latin-America

**Leprosy**
in Pacific Islands 44
Proposed study 22-3, 23, 25, 26, 58-9, 64, 176

**Malaria**
Darling Prize Medal Fund 7, 49-50, 72
Drugs for treatment 7-9, 67, 71, 174
in Latin-America, Control of 58, 59
League of Nations Fellows for malaria courses and field work, 1927 101
Office of research facilities by Govt. of Serb-Croat-Slovene Kingdom 33, 84
in Pacific Islands 44
Programme of Commission for 1928 7, 56, 72-3, 173, 174
Resolutions of Health Committee 173-4
Study tours of Colonel James and Prof. Swellengrebel 7, 68, 70, 72, 173
Teaching of malariology 70, 73, 174
Work of Malaria Commission:
Reports by
Assembly 55-6, 57
Commission (discussion and text) 7-9, 66-74
Medical Director 87

**Medical Director's Report (Feb.-Oct. 1927)**
Approved by Health Committee 177
Text with appendices 75-95, 95-101
Part I 75-86
Discussed 9-21, 26-31
Part II 87-95
Discussed 31-2, 35-7, 41-3

**Milk Supervision** 18-21, 27, 28, 29, 30, 145-6, 177

**Missions of League**
to Argentine, Brazil and Uruguay
*See* Latin America, League mission, etc.
to Pacific Islands, proposed
*See* Pacific Islands, etc.
to study Public health
*See* Public health services, etc.: Individual missions, etc.

**Morbidity Statistics, Establishment of**
Proposals by Dr Roesle 128-131
Work of Commission of Expert Statisticians 35, 36, 89, 90, 121
Governments' observations 127

**New Caledonia, New Guinea and New Hebrides, Health Conditions in**
*See* Pacific Islands, etc.

**Nocht, Professor**
Congratulations of Committee 32-3

**Nutrition, Problem of** 23, 30, 31, 63

**Office international d'hygiène publique**
Agreement with Health Committee *re* Singapore Bureau 14-15, 55, 57

**Opium and other Dangerous Drugs**
Application of Art. 10 of Convention, 1925
Discussion 41
Reports by
Dr. Carrière 160-1
Prof. Knaffl-Lenz
on Benzoylmorphine etc. 161-2
on Eucodal-dicodide 162-4
Resolution of Health Committee 175

**Pacific Islands, Proposed Enquiry into Health Conditions in**
Expenses 166
Referred to Far East Commission 17
Report of Far East Commission 43-5, 165
Resolutions of Health Committee 176
Resolutions of Int. Pacific Conference, December 1926
Examined by Assembly 56, 57
Letter from Australian Govt March 10, 1927 166-7
Note by Dr. Norman White, Oct. 1927 165-6

**Papua, Health Conditions in**
*See* Pacific Islands etc.

**Post-vaccinal Encephalitis**
*See* Encephalitis, etc.

**Public Health Education**
Conference on schools of public health at Budapest and Zagreb
Discussion 26, 27, 31
Experts attending 92
Reports on work by
Medical Director 91-2
Prof. Bernard 141-4
Courses of public health in Paris and London 16, 26, 54, 81-3, 99-101
in Latin-America 22, 26, 59, 63, 64, 176
Reconstitution of Commission on 29, 33-4, 177
Resolutions of Health Committee 50, 177
Studies at Zagreb 17-18, 27-31, 145, 177

**Public Health Services, Liaison System between**
Courses, Int., of public health
*See under* Public health education
Individual missions and scholarships 17, 31, 83-4
Interchanges of personnel
in Different countries 15-16, 79-81
Programme for 1928
Approved by Health Committee 177
Discussion 16-17, 17-21, 26-31
Reports 55, 84-5, 144-6
Liaison between Europe and Latin-America
*See under* Latin-America, etc.
Medical Director's report
Discussion 15-21, 26-31
Text 79-85

**Publications**
of Epidemiological Information Service 9-12, 14, 75, 77, 85, 102
Issued in 1927 85-6

**Rabies Conference, International**
Documents prepared for 137-8
List of participants 135-7
Work
Reports by
Assembly 56, 57
Conference (and appendices) 132-5, 135-8
Medical Director (discussion and text) 41-2, 90-1
Resolution of Health Committee 178

**Red Cross Conference, Thirteenth International**
Representation of Health Committee 5

**Reports**
of Commissions on special subjects, *see those subjects*
of Council and Assembly
*See* Council *and* Assembly
of Health Committee on work of 11th session
Discussion and text 49-50, 173-8
of Medical Director
*See* Medical Director's Report

**Resolutions of Health Committee**
As adopted 173-8

**Rules of Procedure for Advisory Council of Singapore Bureau (draft)**
Examined 13-14, 45-6, 78-9, 164-5
Text 195-6

**Rural Hygiene and Housing**
*See* Sanitary engineering

**Sanitary Convention, Int., 1926**
Application of certain articles to Eastern Bureau
*See* Epidemiological Intelligence Service: Eastern Bureau: Duties under Sanitary Convention

**Sanitary Engineering, Collective Study of** 17-21, 20-31, 145

**Schools of Public Health at Budapest and Zagreb**
*See under* Public health education

**Seamen's Welfare**
Proposed collaboration between Europe and Latin-America 24
Work of Red Cross Conference 48

**Sera for the Determination of Blood Groups**
*See* Blood groups

**Serological Standardisation**
*See* Biological and serological products etc.

**Ships, Infected** 14, 77

**Singapore Bureau**
*See* Epidemiological Intelligence Service: Eastern Bureau of Singapore

**Sleeping Sickness**
Resolutions of Health Committee 174-5
Work of Int. Commission
Appreciation of Assembly 57
Medical Director's report (discussion and text) 42-3, 92-5

**Smallpox**
in Europe, Int. notification of
Cases reported 1921-1927 140
Certificate (model) 141
Memo. by Health Section 11-13, 139-140
Proposal of Epidemiological Conference 102

**Smallpox** *(continued)*
Resolution of Health Committee 175
Work of Smallpox and Vaccination Commission
Report by Prof. Jorge (discussion and text) 47-8, 167-8

**Solomon Islands, Health Conditions in**
*See* Pacific Islands, etc.

**Statistics and Statisticians**
Commission of Expert statisticians
Experts attending 119
Observations of governments on recommendations
Great Britain 126-7
Irish Free State, Estonia, Netherlands and Switzerland 127
Reports on work by
Commission 119-125
Medical Director (discussion and text) 35-7 89-90
Death and morbidity statistics, *see those titles*
on Public health 13, 76

**Still-births**
Classification by causes 116-117, 120, 126
Enquiry in Europe 24, 32, 106, 108-110, 112

**Syphilis**
*See* Venereal diseases

**Tropical Medicine, Congress of**
Place of meeting 5

**Venereal Diseases**
Extension of investigations to Latin-American countries 22, 23, 64
Future Conferences on syphilis 177
Meeting of experts to study, proposed 31-2
Syphilis Conference, Int. Representation of Health Committee 5
Yaws and syphilis in Pacific Islands 44

**Wireless Transmission of Epidemiological Information** 13, 76, 77, 102

**Zagreb, Public Health School at**
*See under* Public health education